

THE SOUTHERN PLANTER,

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—*Xenophon.*

Tillage and Pasturage are the two breasts of the State.—*Sully.*

VOL. X.

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R. B. GOOCH, EDITOR.

P. D. BERNARD, PROPRIETOR.

From Downing's Horticulturist.

DOMESTIC WINE.

To sit under our own vine and fig tree, with no one to make us afraid, is the most ancient and sacred idea of a life of security, contentment and peace. In a national sense, we think we may begin to lay claim to this species of comfort, so largely prized by our ancestors of patriarchal ages. The southern states have long boasted their groves and gardens of fig trees; and there is no longer any doubt regarding the fact, that the valley of the Ohio, with its vine-clad hills, will soon afford a resting place for millions of cultivators, who may sit down beneath the shadow of their own vines, with none to make them afraid.

There has been so much "stuff" of all descriptions, made in various parts of the country under the name of domestic wine—ninety-nine hundredths of which is not half so good or so wholesome as poor cider—that most persons whose palates are accustomed to the fine products of France, Spain or Madeira, have, after tasting of the compounds alluded to, concluded that it was either a poor piece of patriotism, or a bad joke,—this trying to swallow American wine.

On the other hand, various enterprising Frenchmen, observing that the climate of a large part of the Union ripened peaches and other fruits better than that of their own country, naturally concluded that if they brought over the right kinds of French winegrapes wine must be produced here as good as that made at home. Yet, though the experiment has been tried again and again by practical vignerons, who know the mysteries of cultivation, and wine merchants who had an abundance of capital at their command, there is no record of one single case of even tolerable success. In no part of the United States is the climate adapted to the vineyard culture of the foreign grape.

So much as this was learned, indeed twenty years ago. But was the matter to be given up in this manner? Could it be possible that a vast continent, over which from one end to the other, the wild grape grows in such abundance that the Northmen, who were perhaps the first discoverers, gave it the beautiful name of *VINLAND*, should never be the land of vineyards? There were at least two men who still believed

wine-making possible; and who, twenty years ago, noticing that the foreign grape proved worthless in this country, had faith in the good qualities of indigenous stock.

We mean of course, Major ADLUM, of the District of Columbia, and NICHOLAS LONGWORTH, Esq. of Ohio. Both these gentlemen, after testing the foreign grape, abandoned it, and took up the most promising native sorts; and both at last settled upon the *Catawba*, as the only wine grape, yet known, worthy of cultivation in America.

Major ADLUM planted a vineyard, and made some wine, which we tasted. It was of only tolerable quality; but it proved that good wine can be made of native grapes, the growth of our own soil. And though ADLUM was not a thorough cultivator, he published a volume on the culture of native grapes, which roused public attention to the subject. He made the assertion before he died, that in introducing the *Catawba* grape to public attention, he had done more for the benefit of the country than if he had paid off our then existing national debt. And to this sentiment there are many in the western states who are ready now to subscribe heartily.

Mr. LONGWORTH is a man of different stamp. With abundant capital, a great deal of patriotism, and a large love of the culture of the soil, he adds an especial talent for overcoming obstacles, and great pertinacity in carrying his point. What he cannot do himself, he very well knows how to find other persons capable of doing. Hence he pursued quite the opposite system from those who undertook the naturalization of the foreign grape. He advertised for native grapes of any and every sort, planted all and tested all; and at last, he too has come to the conclusion that the *Catawba* is the wine grape of America.

"What sort of wine does the *Catawba* make?" inquiries some of our readers, who like nothing but Madeira and Sherry; "and what do you think will be the moral effect of making an abundance of cheap wine?" asks some ultra temperance friend and reader.—We will try to answer both of these questions.

The natural wine which the *Catawba* makes is a genuine hock—a wine so much like the ordinary wines of the Rhine, that we could put three of the former bottles among a dozen of the latter, and it would puzzle the nicest connoisseur to select them by either color or fla-

H. M. Nelson

vor. In other words, the Catawba wine (made as it is on the Ohio, without adding either alcohol or sugar,) is a pleasant light hock,—a little stronger than Rhine wine, but still far lighter and purer than nineteen-twentieths of the wines that find their way to this country. Its subacid flavor renders it especially grateful, as a summer drink, in so hot a climate as ours; and the wholesomeness of the Rhine wine no one will deny.* Indeed, certain maladies, troublesome enough in other lands, are never known in hock countries; and though the taste for hock—like that for tomatoes—is an acquired one, it is none the less natural for that; any more than *walking* is, which, so far as our observation goes, is not one of the things we come into the world with, like seeing and hearing.

As to the temperance view of this matter of wine-making, we think a very little familiarity with the state of the case will settle this point. Indeed, we are inclined to adopt the views of Dr. FLAGG, of Cincinnati. "The temperance cause is rapidly preparing public sentiment for the introduction of pure American wine. So long as public taste remains vitiated by the use of malt and alcoholic drinks, it will be impossible to introduce light pleasant wine, except to a very limited extent; but just in proportion as strong drinks are abandoned, a more wholesome one will be substituted. Instead of paying millions to foreigners for deleterious drinks, let us produce from our own hillside a wholesome beverage, that will be within reach of us all—the poor as well as the rich."

Very few of the friends of temperance are perhaps aware of two facts. First, that *pure* light wines, such as the Catawba of this country, and the Hock and Clarets of Europe, contain so little alcohol (only 7 or 8 per ct.) that they are not intoxicating unless drunk in a most inordinate manner, to which, from the quantity required, there is no temptation. On the other hand, they exhilarate the spirits, and act in a salutary manner on the respiratory organs. We do not mean to say that men could not live and breathe just as well, if there were no such thing as wine known; but that since the time of Noah, men will not be contented with merely living and breathing; and it is therefore better to provide them with proper and wholesome food and drink, than to put improper aliments within their reach.

Second, that it is universally admitted that in all countries where light wines so abound that the peasant or working-man may have his pint of light wine per day, drunkenness is a thing unknown. On the other hand, in all countries which do not produce claret, hock, or some other wholesome light wine, ardent spirits are used, and drunkenness is the invariable result. As there is no nation in the world where only

cold water is drank, (unless opium is used,) and since large bodies of men will live in cities, instead of forests and pastures, there is not likely to be such a nation, let us choose whether it is better to have national temperance with light wines, or national intemperance with ardent spirits. The question resolves itself into that narrow compass at last.

As we think there are few who will hesitate which horn of the dilemma to choose, (especially, as an Irishman would say, "where one is no horn at all,") it is, we think, worth while to glance for a moment at the state of the vine culture in the valley of the Ohio.

We have before us a very interesting little pamphlet, full of practical details and suggestions on this subject.* It is understood to be from the pen of R. BUCHANAN, Esq. president of the Cincinnati Horticultural Society. It deals more with facts, actual experience, and observation, and less with speculation, supposition, and belief, than anything on this topic that has yet appeared in the United States.—In other words, a man may take it, and plant a vineyard, and raise grapes with success. He may even make good wine; but no book can wholly teach this latter art, which must come by the use of one's eyes and hands in the business itself.

Among other interesting facts, which we glean from this pamphlet, are the following: The number of acres in vineyard culture, within twenty miles of Cincinnati, is *seven hundred and forty-three*. Those belong to 264 proprietors and tenants. Mr. LONGWORTH owns 122 acres, cultivated by 27 tenants.

The average product per acre in 1848 (a good season,) was 300 gallons to the acre. In 1838 (the worst year ever known,) it was 100 gallons. One vineyard of two acres, (that of Mr. RENTZ,) has yielded 1300 gallons in a season. New Catawba wine, *at the press*, brings 75 cents a gallon. When ready for sale, it readily commands about \$1.25 per gallon.

The best vineyard soil on the Ohio, as in the old world, is one abounding with *lime*. A "dry calcareous loam" is the favorite soil near Cincinnati. This is well drained and trenched, two or three feet deep, before planting the vines; trenching being considered indispensable, and being an important part of the expense. The vines, one year old, may be had for \$6 per 100, and are usually planted three by six feet apart—about 2,420 vines to the acre. They are trained to single poles or stakes, in the simple mode common in most wine countries; and the product of the Catawba per acre is considerably more than that of the wine grape in France.

Mr. BUCHANAN gives us a number of calculations of the cost and profit of a vineyard on

* Mr. LONGWORTH is now making large quantities of sparkling Catawba wine, of excellent quality—perhaps more nearly resembling sparkling hock than Champagne.

* *A treatise on Grape Culture in Vineyards in the vicinity of Cincinnati*: By a member of the Cincinnati Hort. Society. Sold by I. F. De Silver, Main st. Cincinnati.

the Ohio, per acre. The following is the result of his various inquiries:

Cost of a vineyard per acre, say \$250, interest per annum,	\$15,00
Cost of attending, per acre,	60,00
Cost of making the wine,	25,00
	<hr/>
	\$100,00
Probable average annual product—200 gallons at \$1,	200,00
Supposed profit per acre,	<hr/>
	\$100,00

This, which we think a reasonable estimate, is certainly an encouraging one for the cultivator of the vine in the United States. The soil and climate for the Catawba grape are, however, not to be found over a large range of our country. It is only in the more favored portions of the middle and western states that this grape ripens well enough to produce good wine. But the district extends over a breadth of a thousand miles, and contains fertile land enough to supply all our people with pure and wholesome wine.

The grape is by no means free from enemies. Its most fatal one in this country, is the *rot*—a disease which attacks the fruit; and though very little known here, it is a very serious mischief on the Ohio. As yet, it baffles all inquiries; but a careful perusal of this pamphlet, joined to our own observations, leads us to believe that it is owing to rapid alternations of heat and cold, moisture and drought, on the surface of the soil.

Mr. LONGWORTH states that the only vineyards about him, free from rot in certain unfavorable seasons, were those of two or three lazy tenants, who left the surface uncultivated, so that it became covered with a thick coat of grass and weeds. Not a rotten berry was to be seen; while in his own and other vineyards, the surface of which was neatly dressed, the disease was very prevalent.

The remedy, if we understand the force of this circumstance aright, is plainly *mulching*. Instead of cultivating the soil all the season, cover it early in the spring with straw, litter, sea-weed, tan, or whatever else may be had. The cost of the *mulch* will not be more, in most cases, than the labor of dressing the land; and it will effectually prevent all necessity for the latter. At any rate, it is well worth trial, and two or three facts within our notice lead us to believe that it will prevent the rot effectually.

Taking it for granted, that the Catawba will give us good hock, and sparkling wine, another native variety that will produce excellent table claret is a desideratum. The Schuykill Muscadelle, or Cape Grape, is said to do this on the Ohio. We have not had an opportunity of tasting the wine made from this grape; but so many cultivators are now experimenting with seedlings, that we cannot doubt a variety capable of giving us excellent red wine will soon be brought to notice.

PROPOSED REMEDY FOR STEALING FRUIT.

Many farmers in this vicinity are deterred from cultivating fruits, from the fact of its liability to be stolen by unruly boys, not to say men, or animals in the shape of men. Now, if we lived among Arabs, we should probably expect this; but in a civilized community, governed, as we claim to be, by laws, and where a very large proportion of the inhabitants are themselves cultivators of the soil, this state of things is really too bad. Having seen various remedies suggested, such as bull dogs, tartar emetic, hedge fences, &c. I have thought of proposing a plan which, if thoroughly carried out, I have no doubt would be more effectual than all others combined. Let every person who occupies a single rod of ground, plant a grapevine, a peach tree, a pear tree, an apple tree, and if natural fruit, graft or bud them with some of the best varieties in the neighborhood. Plant, also, a few cherry stones, if you can find no tree that you are able to buy; set out a currant bush, or raspberry plant by the side of the fence, and almost any person can have these given him if he will only take the trouble to set them in the ground; or, if not given him, the expense is a mere trifle, a few shillings at most, and my word for it, no man, who knows the pleasure, yes, the *pleasure* of cultivating, and the vexation of having them stolen, will ever be guilty, nor suffer his children to be guilty of such meanness afterwards.

But it may be said, "I have no land to spare for such things as these, I must raise what will turn to the most profit." Now I ask, what will pay better than fruit of almost every kind, at the present day? Besides, would you not prefer being at a little trouble, or even a trifling expense, to raise these things, rather than have your children pilfer, or even beg them of your neighbors? But it will be said, I shall not live long enough to enjoy them, if I do take all this trouble. Are you sure of that? You can probably get a fair crop of grapes in two to three years, if you will simply train a vine to your house, or plant it in your garden or yard, and set a pole by the side of it, to run upon; and so with almost every kind of fruit tree. They will bear in much less time than is generally supposed, if they are only taken care of. But supposing you do not live to enjoy it yourself, do you wish to do nothing for your children? or do you wish the world to be no better for your having lived therein? If so, go on in the "even tenor of your ways," and encourage your children to "follow in your footsteps," and your wish will probably be gratified.—*American Agriculturist.*

There are a million cows in New York, and the annual product of the dairy of that State, is estimated at fifty million dollars.

From the North American Farmer.

TUSSOCK GRASS, (DACTYLIS CÆSPI-TOSA.)

As already intimated, I proceed to give your readers a brief description of the far famed Tussock grass of the Falkland Islands, that certainly is worthy of some attention in this country, and may at no distant day form a highly important addition to the list of grasses in some sections. This grass has been mentioned in one or two numbers of the Patent Office report, though not very fully described. It is there stated that successful attempts have been made to introduce it into Scotland and Ireland, and experimenters are sanguine in the belief that it will soon become extensively cultivated, at least on peat lands where it thrives most luxuriantly. It was raised from the seed, which could be easily brought to this country, and doubtless soon will be, for it is a grass too highly recommended to remain long neglected.

It had received no special notice until the Falkland Islands were colonized by the British, when an account of it was made public. Recently these islands were visited by the celebrated Dr. Hooker, who has given a full description of it in his "Flora Antarctica," published 1845-47.

It belongs to the same genus of the Orchard grass (*Dactylis glomerata*) though differing widely from it in its general aspect and habits.

It is a perennial of very slow growth, requiring three or four years to reach maturity, but may be cut annually during this time, without injury. It will reach the height of seven feet by the close of summer, after having matured and been cut over. This grass produces from a *single seed* the almost incredible number of *four hundred stems*; forming a tuft, having a diameter of three or four feet; "the base of each culm being nearly as broad as the thumb, and when pulled out young, they yield an inch or two of a soft, white, and sweet substance, of the flavor of a nut, and so nutritious that two American sailors, who deserted a vessel in an unfrequented part of the Falklands, subsisted on little else for fourteen months."

It is described as being a "gregarious grass, extending in patches sometimes for nearly a mile," and is found *principally* on the borders of peat lands, near the sea, though it thrives in pure sand, that is enriched by sea weeds and the excrement of sea fowl.

It is also found in the interior of the islands on cliffs, whither the seeds have been carried and manured by birds. Hence its general proximity to the sea does not lead to the inference that its nearness to the salt water is essential to its growth, but that it is driven to the shore by other plants that occupy the central portions. The following extract from the report of the Governor of these islands, is verified by Dr. Hooker, and will very reasona-

bly induce the highest expectations relative to the capabilities and value of this plant.

"During several long rides into the country I have always found the Tussock flourishing most vigorously in spots exposed to the sea, and on soil unfit for any other plant, viz: the rankest peat bog, black or red.

"It is wonderful to observe the beaten foot-paths of the wild cattle and horses, marked like a foot track across the fields of England, extending for miles over barren moor-lands, but always terminating in some point or peninsula covered with this favorite fodder; amid which one is almost certain to meet with solitary old bulls, or perhaps a herd of cattle, very likely a troop of wild horses, just trotting off as they scent the coming stranger from afar. To cultivate the Tussock grass, I should recommend that its seeds be sown in patches, just below the surface of the earth and at distances of about two feet apart; it must afterwards be weeded out, for it grows very luxuriantly, frequently attaining a height of six or seven feet. It should not be grazed, but cut or reaped in bundles. If cut, it quickly shoots again; but is injured much by grazing; for all animals, especially pigs, tear it up to get at the sweet nutty-flavored roots. It has been used abundantly when made into hay, being preferred by the cattle even to the green state of any of the other excellent grasses in the Falklands. Indeed, so great is their fondness for it that they will eat the thatch off the roof of a house in winter, and will scent it a considerable distance and use every effort to get at it."

In continuation, Dr. Hooker interestingly remarks, "there are few plants which from perfect obscurity have become objects of such interest as this grass. The Tussock in its native state seems of almost no service in the animal economy. A little insect, and the only one that I observed, depends on it for sustenance; a bird, no bigger than the sparrow, robs it of its seeds; a few sea-fowl build among the shelter of its leaves; penguins and petrel seek hiding places among its roots, because they are soft and easily penetrated, and the sea-lions cower beneath its luxuriant foliage; still, except the insect, I know no animal or plant whose extinction could follow the absence of this, the largest vegetable production in the Falklands, which does not even support a parasitical fungus. These same sea-birds breed or burrow where no Tussock grows; rocks elsewhere suit the sea-lion's habits equally well; and the sparrow, which subsists on other food eleven months of the year, could surely make a shift without this for the twelfth.

"Certain it is that the Tussock might yet be unknown and unprized amongst plants, if cattle had not been introduced to its locality by man; who thus became, first the injurer; and then the protector and propagator of the existence of this noble grass; for the herbivorous quadrupeds which he carried to the Falk-

lands and left there, were surely extirpating the Tussock, when man returned, and by protecting, perpetuating, and transporting it to other countries, he has wisely dispersed it. It appears singular that so striking a grass should abound where there is no native herbivorous animal to profit by its luxuriance; but it is no less certain that had not civilization interfered, the Tussock might have waved its green leaves undisturbed over the waters of the stormy Antarctic Ocean, forever perhaps, or until some fish, fowl, or seal, should be so far tempted by the luxuriance of its foliage as to transgress the laws of nature, and to adapt its organs to the digestion and enjoyment of this long neglected gift of a bounteous Providence."

In conclusion it may be added, as a singular fact, that the Falkland Islands are entirely destitute of trees, while several farther south have tolerably extense forests; but as a substitute they had consigned them the majestic Tussock that bids fair to rival our most vigorous grasses, with which it compares as the towering pine with the humble shrub.

J. R. P.

Chatham, New York.

FINE SHEEP.

An object of considerable notice in our streets, on Thursday last, was a lot of Cotswolds, from the flock of Col. J. W. Ware, near Berryville, Clarke county, Virginia, on their way to M. G. Booth, Esq. Franklin county, Va. They consisted of a buck and five yearling ewes—two of the latter, part bred—the first was a magnificent animal, weighing near three hundred pounds; the others in proportion.

The following are the weights of fleeces, we are informed, obtained from some of the flock of Col. Ware, at his late shearing—they were washed on the back, and rated 8, 9, 9½, 10, 11, 11½, 12, 13, 13½, 16, 18½ lbs. The last uncommon fleece was taken from the buck, which at the shearing last year yielded 18½ lbs.—making 37½ lbs. in two years.—*Winchester Virginian*.

FARMERS, READ!

The harvest will soon be over; the yield generally throughout our favored land has been unusually good. The Goddess of Agriculture has smiled upon the labors of the husbandman, and a munificent Providence has been most bountiful to the tiller of the soil. The reward of the farmer's honest industry is an abundant harvest, and happy are we to know that the most anxious expectations and devout prayers have been so generally verified and fulfilled. Agriculture is the basis of every country's position and permanency, and in no

part of the world has the success of this great national industry so powerful an influence as in the United States. Without a successful agricultural community we could never maintain our proud position as manufacturers, and our commerce, the pride and boast of Americans at home and abroad, would virtually perish! How necessary is it then to render all possible aid to this "first cause" of our national greatness and renown! Our government, which has fostered and protected every other branch of industry, has sadly neglected the first and most important. The manufacturing and commercial interests are ever and anon urging their claims of protective legislation upon Congress, while the very foundation of these minor interests is forgotten or neglected. It is true the farmer requires no direct aid from government; his industry and economy protect him, but when a bill is brought forward, the object of which is to benefit or farther the cause of agriculture in general, it is treated with as little attention as if it was the most insignificant subject extant. The "Agricultural Bureau" is slumbering on the tables in Washington, and unless a speedy and powerful effort is made, we fear it will slumber until beyond the power of resuscitation.

We would respectfully call the attention of our friends in Congress to this truly national subject, especially as the exciting question of slavery is about to be disposed of. To our farmer friends, in all parts of the Union, we can give no better advice than to direct them to the importance and necessity of education. Educate your children, and you will, in truth, bring them up in the way of the Lord. We have often heard, and with sincere regret, that our agricultural population is sadly deficient in this most necessary requirement.—We believe a brighter day is dawning, and the people of the country will "shake the dew drops from their armor," to bring about that era when every tiller of the soil can in reality be called an *intelligent farmer*. The increasing circulation of newspapers will do much to enlighten and instruct the rising generation, as well as to benefit the fathers and mothers of the land. There are quite a number of papers and periodicals published now, specially devoted to the interests, tastes, and requirements of the farmer, and resident of the country. We speak of this matter as one of serious moment to every citizen in the interior, and not simply as a recommendation of our own paper. Any good, well conducted moral journal or book, is deserving of patronage, and should form a part and parcel of the necessities of every household. The benefits ensuing from the perusal and study of the instructive and dignified editorials, and brilliant moral essays with which many of our publications abound, are of incalculable value, as many intelligent, well informed persons in various parts of the country can testify. The approaching fall and winter seasons

should not be suffered to pass, by those who are behind their neighbors in practical and theoretical knowledge, without supplying themselves with the beacon lights of life, books and newspapers! There can be no excuse for not having them; the modes of transmission are easy and expeditious, and the prices of subscription, in all conscience, low enough to suit the most economical. Read and reflect!—*Weekly N. A. Farmer.*

THE PLOUGH.

The following tribute to the Plough, is extracted from a report recently made to the Berkshire County Agricultural Society, by OLIVER WENDALL HOLMES.

Clear the brown path to meet his coulter's gleam!

Lo, on he comes behind his smoking team,
With toil's bright dew-drop on his sunburnt brow,

The lord of earth, the hero of the plough!

First in the field before the reddening sun,
Last in the shadows when the day is done,
Line after line along the bursting sod
Marks the broad acres where his feet have trod;

Still where he treads the stubborn clods divide,
The smooth fresh furrow opens deep and wide;
Matted and dense the tangled turf upheaves;
Mellow and dark the ridged cornfield cleaves;
Up the steep hill-sides where the laboring train
Slants the long track that scores the level plain;

Thro' the moist valley clogged with oozing clay,

The patient convoy breaks its destined way;
At every turn the loosening chains resound,
The swinging ploughshare circles glist'ning round,

Till the wild field one billowy waste appears,
And wearied hands unbind the panting steers.

These are the hands whose sturdy labor brings
The peasant's food, the golden pomp of kings;
This is the page whose letters shall be seen
Changed by the sun to words of living green;
This is the scholar whose immortal pen
Spells the first lesson hunger taught to men;
These are the lines, O heaven commanded
Toil,

That fill thy deed—the charter of the soil!

O, gracious Mother, whose benignant breast
Wakes us to life and lulls us all to rest.
How sweet thy features, kind to every clime,
Mock with their smiles the wrinkled front of Time!

We stain thy flowers—they blossom o'er the dead;

We read thy bosom, and it gives us bread;

O'er the red field that trampling strife has torn,
Waves the green plumage of the tasselled corn;

Our maddening conflicts scar thy fairest plain,
Still thy soft answer is the growing grain.

Yet, O, our mother, while uncounted charms
Round the fresh clasp of thine embracing arms,

Let not our virtues in our love decay,
And thy fond weakness waste our strength away.

No! by these hills, whose banners now displayed,

In blazing colors Autumn has arrayed;
By yon twin crest, amid the sinking sphere,
Last to dissolve, and first to re-appear;

By these fair plains the mountain circle screens
And feeds in silence from its dark ravines;

True to their homes these faithful arms shall toil

To crown with peace their own untainted soil;
And true to God, to Freedom, to Mankind,
If her chained bandogs Faction shall unbind,
These stately forms, that bending even now,
Bowed their strong manhood to the humble plough;

Shall rise erect, the guardians of the land,
The same stern iron in the same right hand,
Till Greylock thunders to the parting sun
The sword has rescued what the ploughshare won!

A WORD ABOUT GARDENING.

No one can be truly said to live, who has not a garden. None but those who have enjoyed it can appreciate the satisfaction—the luxury—of sitting down to a table spread with the fruits of one's own planting and culture. A bunch of radishes—a few heads of lettuce—taken from a garden on a summer's morning for breakfast; or a mess of green peas or sweet corn, is quite a different affair from market in a dying condition, to be put away in the cellar for use. And a plate of strawberries or raspberries lose none of their peculiar flavor by passing directly from the border to the cream, without being jolted about in a basket until they have lost all form and comeliness. And yet, how many in the smaller cities and villages of our country, possessing every facility for a good garden, either through indolence or ignorance, are deprived of this source of comfort.—And how many farmers, with enough land lying waste to furnish them with most of the luxuries of life, are content to plod on in the even tenor of their way, never raising their tastes above the "pork and beans" of their fathers.

For the Southern Planter.

PLANS OF A BEGINNER.

Mr. Editor,—Expecting shortly to commence farming, and having no experience, I would beg leave to communicate my plan, respectfully asking of your subscribers to suggest to me such amendments or alterations as may be deemed proper by them. I have but a small quantity of land, none of it rich, though all is susceptible of improvement. I intend to divide my high land into five equal fields, each containing between twenty-five and thirty acres—giving to each field some name or number, whereby my operations may be the more plainly set out in my farm book. These fields I mean to cultivate in the following manner:

	LOT A.	LOT B.	LOT C.	LOT D.	LOT E.
1st year,	Wheat & clover.	Rest.*	Oats and clover.	Corn.	Rest.
2d year,	Clover.	Wheat & clover.	Clover.	Oats and clover.	Corn.
3d year,	Corn.	Clover.	Wheat & clover.	Clover.	Oats and clover.
4th year,	Oats and clover.	Corn.	Clover.	Wheat & clover.	Clover.
5th year,	Clover.	Oats and clover.	Corn.	Clover.	Wheat & clover.

When I turn in clover I shall, if I can raise the money, lime the field well before fallowing! I will sow or plant on no fallow without first giving it a thorough rolling. I desire to know if this is the proper plan, or is there a better? I would be thankful for any suggestions from yourself or correspondents, also for answers to the following questions:

1st. Would pasturing the land intended for corn be injurious; or ought I to turn in the whole crop of clover?

2d. What force will it require to work my land after the above plan, with profit to the land and myself?

I have not a solitary building on the place, and of course must first put up the necessary barns, quarters and out-houses, leaving the dwelling-house to abide its time. How many, and what sized houses should I erect? Can you furnish me with good plans and correct estimates?

Any information upon the foregoing subjects would be serviceable to a young man with a family, which bids fair to be reputable in numbers, and will be gratefully acknowledged by

ONE WHO WANTS TO LEARN.

P. S.—If I had any acquaintance with Mr. C***** of S. or Mr. S***** of G. or could I presume on the acquaintance I had, when a boy, with Mr. R*****, I would most respectfully ask them to aid a young beginner.

July 16, 1850.

We publish the foregoing from "one who has a will," even if he be not yet under way, for the purpose of affording such of our correspondents as may be able to answer him, an opportunity of doing so.

His plan, that of liming his clover fallows, we regard as not so advantageous as the application of lime to corn or other crops of tilth, where the calcareous matter becomes thoroughly intermixed with the soil.

In relation to the first query, we shall say, having an eye to the description of soil to be treated, (in Chesterfield,) that the better plan would be *not* to graze the field intended for corn, unless it be infested with sassafras or other shrubs.

The force required to work such a farm as that described must depend upon the industry and management of our correspondent. Four hands are amply sufficient; less might get along; more would bring him in debt.

Our correspondent is too hard for us when he asks "how many and what sized houses" he should erect. The task is, in itself, difficult enough, and becomes still more so, when the prospect of a family "reputable in numbers" is considered.

* If I have time I shall broadcast in peas, lime and fallow for wheat and clover. I shall endeavor to make as much manure as the farm will afford, all of which I shall in the spring apply to my clover in the second year. I shall top-dress my wheat, as soon as the young clover cleverly shows itself, with a good dressing of plaster.

From the Albany Cultivator.

IRRIGATION.

Eds. Cultivator.—I have long been aware of the importance of fertilizing land by means of water, and what can be more rational, when by chemical analysis we find that the water of many streams, contains a large quantity both in suspension and in solution of animal, vegetable and mineral substances, and also that it is a compound, even in its purest state, of hydrogen, oxygen, carbonic acid, &c.? By the same analysis, also, we find that the principal ingredients for the support of plants, are these identical substances. Here, then, the wonderful effect of irrigation upon the soil, is at once accounted for; and with regard to this wonderful effect, I will here refer the reader to Brewster's *Edinburgh Encyclopædia*, and especially to the articles under the heads of Irrigation—Agriculture—France. It has long been practised to a greater or less extent, in every habitable country on the globe, between the 60th degrees of north and south latitude. The Hon. Daniel Webster, on witnessing in England, the great effects of irrigation, made particular inquiry as to the rules, results, &c. which, with his usual clearness, he communicates to his agricultural friends after his return home.

If in the cool and moist climate of England, three crops of hay and grass are obtained in one season, and their irrigated lands rent for double the price of other lands, why may not the American farmer realize at least equal advantages in a more favorable climate? Indeed, the farmer who has the power of fertilizing a portion of his land with water, has a treasure in his possession, and he who neglects to avail himself of its benefits, is certainly slow in the comprehension of his interest. That water operates as a powerful fertilizer to the soil, when made to flow over it, is fully proved by the fact that on up-land which has been irrigated and used for pasture or meadow, the water being afterwards withheld, and the land subjected to the plough, an unusual heavy crop of grain is always the result—far exceeding the product of other parts of the same field not irrigated. Thus water, when applied to grass, on lands adapted to grain, performs the double office of increasing the growth of the former, and at the same time imparting a durable fertility to the soil for the benefit of the succeeding crop of grain. Rye, however, even when growing, is much benefited by slight irrigation after the appearance of the blossom, and Indian corn can scarcely be watered too much after the appearance of the silk and tassel, and a luxuriant growth will be the result. It is probably the hayfield, however, from which the farmer may derive the greatest advantage from irrigation. A meadow, for instance, which will produce 3 to 4 tons of first quality hay per acre (which has been effected by this means, even as far north as Vermont,) for an unlimited

term of years, without the expense of any other manure; but in case he consumes his hay on his farm, contributing largely towards his stock of manure for other fields—such a meadow may well be regarded by its owner as of great value. Indeed, let a comparison be made with regard to the net profit, with almost any other crops obtained from an equal quantity of land, for a term of years, and it will be found that the amount of labor and other items of cost required to put the crop into a marketable state, will throw a large balance in favor of the irrigated meadow. It therefore becomes a question to the farmer who possess the means of irrigation, whether it would not promote his interest to set apart his irrigated lands, even if suitable for grain, as permanent meadow, and exempt them from regular rotation.

Objections have been made by some, that the hay of irrigated meadows is less nutritive and less palatable to cattle than other hay.—This objection will only apply where the water has been allowed to flow too profusely and too late in the season; and this may be entirely avoided by winter and spring irrigation, properly conducted. As increased fertility of the soil is an object with every farmer, I am decidedly of the opinion that from the first freezing of the earth in autumn, to the entire cessation of freezing in spring, is by far the most suitable and proper time for fertilizing all lands with water. An argument in favor of this, is, that several months of each year are added to the time for the water to impart its fertility; which is so much clear gain of time in addition to the common method; and the earth is kept through the whole winter considerably above the freezing point, and should a sheet of ice extend over the entire field, it will do no injury but protect the earth beneath from freezing.

Professor Davy ascertained that the temperature of the earth beneath a lid of ice, on a water meadow in England, was 14 degrees warmer than the air above, in a very mild wintry day. In this case, on the water being withheld, at the time above stated, the field will be several weeks in advance of other lands, and an early crop may be put in, or if the field is designed for meadow or pasture, it is here that the first green mantle of spring is spread out, and it is here that the farmer's cattle find the first herbage of the season, and indeed linger latest in fall, for with a few judicious waterings in summer, it holds out later in autumn than other lands. I can point to a piece of tillage up-land, which a few years ago, was a dry, barren spot, but is now like a rich garden, made so solely by water. A stream of what is called hard water, (rendered so probably by the sulphate of lime it contains,) has been diverted from its course, and spread over the surface for about six months of each year, and by filtering into and through the soil, has deposited an immense amount of fertilizing matter, as was clearly shown by a recent crop of Indian corn. The hills below the line of ditch,

yielding double the quantity of those above the line, and but a few feet apart. It was also noticeable, that while worms had seriously injured the corn above the ditch, not a hill was molested below, as far as the water had reached. And here I will remark that on all irrigated lands the grasshopper ceases to be "a burden" to the farmer, and the same may be said of all the various insects and worms that prey upon vegetation, whose combined depredations often deprive him of one-half of the product of the hay-field. Indeed, every description of vermin, which burrow beneath, or live on the surface, always to the annoyance of the farmer, find no resting place on irrigated land.

Time will not now permit me to go into a general detail of directions in relation to fertilizing land with water. I will observe, however, that all irrigation, after vegetation has commenced in the spring, should be, if practicable, applied only in the night, or between the setting and rising of the sun, and gradually discontinued as the season advances, and by the first of August entirely withheld, except to supply the deficiency which may be needed in the absence of rains. I am aware that but small portions of a country can be benefited by irrigation, yet when we look at the extent it is practised in the eastern hemisphere, where the surface is more flat and level than here, it certainly can be done to a still greater extent in many of these states. Indeed, there are methods adapted to both level and hilly districts, which can be as easily resorted to here as in foreign countries. When the least doubt exists with regard to the practicability of irrigation, the eye should not be trusted without the aid of a correct levelling instrument. All streams seek and flow through the lowest grounds and valleys in their vicinity; consequently by the laws of gravitation, aided by the spring freshets and rains, the soluble salts, the finely divided organic matters, and the richest parts of all soils, are gradually moving towards the place where waters flow, and are continually passing away with the current, and this forms one of the drawbacks upon the permanent fertility of soils. To arrest these matters from wholly passing away and being lost, is one of the important ends of irrigation. Even the smallest rills which flow but a few weeks in spring, may in most cases be diverted from their natural courses, and spread upon meadow or plough lands, in a few years rendering other and more expensive manures unnecessary as far as their waters reach; and it is certainly a great addition to the value of any farm, if the location admits of a portion of the same being fertilized by means of water, without going to an unreasonable expense. With this view, a careful examination of every stream which the farmer has at his command, should be made, and this, in most cases, can easily be done.

A. B.

From Hovey's Magazine of Horticulture.

THE CURCULIO AND CODLING MOTH.

Their Habits, and the Best Means of Preventing their Ravages upon Fruits.

BY M. H. SIMPSON.

Dear Sir,—My attention has been called to examine the insects which are destructive to fruits, and to ascertain their habits, in consequence of being a sufferer for a number of years. As the information may be of use, I herewith submit the result of my experiments and observation. There are only two insects which have caused me any trouble; the others are all easily destroyed, viz: Curculio and Codling moth. These two have destroyed the past year seven-eighths of my apples, cherries, plums and peaches, and have disfigured the pears by their punctures.

THE CURCULIO.

The curculios commenced puncturing the fruit about the sixth of June, and deposited their eggs in full three-fourths of the apples, causing them to drop when very small, and to an equal extent the cherry and peach. The plums would have been all destroyed, but for the means adopted in saving them: this was by shaking the trees, the insect falling upon cotton cloth, extended over a frame, which I placed under the tree, and also by placing a frame over the tree, and extending worsted netting over it, which was sufficiently open to admit air and light. The labor and expense of these methods are considerable, and I hope better plans may be found, one of which I am now experimenting upon with some prospect of success.

I showered the trees, before the buds broke, with whitewash, with a hand engine, covering the branches *entirely*; the time required for a moderate sized tree was only five minutes, and the expense of lime hardly worth estimating. If this does not answer the purpose, I shall syringe the fruit when but little larger than a common bean; my experiments have convinced me that this latter method is a sure preventive. I found four of the larvæ in one apple nearly ready to go into the ground, where they go through their crysalis state, and remain until the following season in a torpid condition. I have produced the perfect insect from the larvæ which were found in the apple, peach and cherry. In about four weeks the larvæ attain their full size, and are then known as the cherry and peach worm, generally so called, and also the small apple worm; and they are the cause of the cherry and peach rot by their late punctures. Respecting the habits of this insect, I have noticed that they commence their attacks on the fruit from the *first to the tenth of June*. I have seen them as late as the 1st September, but

have not discovered fresh punctures later than the 20th July; and I am inclined to believe, that those which are seen later are of the new crop, which have been *disturbed* accidentally in the earth.

I ascertained the increase of the curculio by placing a male and female under a glass vessel, and giving them one plum a day for thirty-six days. They deposited, upon an average, about eight eggs per day, and they ceased depositing them about the same time that the punctures ceased upon the fruit on the trees. They go through their chrysalis state in three weeks after going into the ground, and remain in a torpid state through the season unless the earth is disturbed. I produced ten of the perfect insects, which are little black beetles, from the larvæ, and fed them until the 1st of January with apple. The larvæ which were in the fruit were placed upon a surface of earth in a glass vessel, and after eating three weeks, they left the apple and bored their way into the earth to the depth of three or four inches, and there formed a little home, where they cast their skin, and in about three weeks the perfect beetle was formed; they lay dormant in this state, until I disturbed them; some I took from the earth the 1st of August and others on the 1st of October.

The mechanical performance of this little beetle should not pass without notice. In making her nest and laying her eggs in the fruit, she exhibits an instinct that is truly wonderful,—with her snout or proboscis she punctures the fruit in the shape of a semi-circle, to the depth of one-tenth of an inch, upon an angle of about forty-five degrees; and then makes a horizontal puncture, directly under the skin, to the extent of one-tenth of an inch; she then turns round and deposits her eggs, at the entrance of the horizontal puncture; after which she again turns round, and, with her proboscis, pushes home the eggs to the bottom of the last puncture, and presses the flesh of the plum against the skin, and holds it in this position about ten minutes, until the flesh and skin are knit together, for the purpose, as I suppose, of preventing the egg from rolling out, and also to protect it from a minute spider. The semi-circular cut is made to provide for contraction, as, if made straight, the skin would split and the egg roll out.

The curculio flies a great distance, and their numbers are immense where there are plenty of fruit trees. It is evident, unless some means are taken to diminish them, that they will eventually take all the fruit. I know of no article that will scent them off. I placed a bottle of spirits of tar directly under three plums, and in a few days found the fatal puncture upon them. The egg hatches in from five to ten days, and the fruit may be saved by taking out the egg, but the application of white wash, by syringing the fruit, I consider the most practicable, unless the experiment which I am now trying answers the purpose—of syringing the limbs before the buds break. To make the

wash stick to the fruit or tree, I put in a little glue.

THE CODLING MOTH.

The other insect to which I alluded is the codling moth: this little moth deposits her egg in the eye of the apple; they commenced last year about the 15th of June, and were so destructive on my trees as to take about all the curculio spared, and many of the Bartlett and Passe Colmar pears. They are about all the season, or until the middle of September.—There are two or three crops of them: I produced them from the egg in about five weeks; they were two weeks eating before they were ready to go into the chrysalis state, and three weeks before the perfect moth appeared. They are a small gray moth, with a distinct mark upon the hind part of the wings, of a brown color, edged with copper; they do not extend their wings more than seven-eighths of an inch; they are lively at night, and entirely at rest in the day time, from which I infer that they fly only at night. I have never been able to find one upon the trees. After the egg has been hatched, the worm eats to the centre of the apple and then out at the side, and are the cause of the wind-falls, or *moth-falls*. I saved a number of apples by placing a piece of bees-wax over the eye; but the plan, for practical purposes, is to syringe the fruit with white wash; this will fill the eye, and thus prevent the moth from laying her egg. I am happy to state, that I discovered a trap for the larvæ of this insect, by which an orchard can be cleared of them with little labor. Noticing two or three of the larvæ creeping upon a piece of *cotton cloth* which was thrown accidentally into the crotch of an apple tree, my curiosity led to further examination, and to my surprise and pleasure, I found thirty of the larvæ in their silken homes, going through their chrysalis state. They knit the folds of cloth together with silken ties, and there quietly change from the loathed worm to the perfect insect, which is perhaps as beautiful, under a microscope, as any production of the insect tribe. I again placed the cotton cloth in the crotch of the tree, and examined it in three weeks, and found another encampment of them in the same state, and hence concluded they were quite in my power with very little labor. The cloth should be placed in the tree, about the 25th of June, and should be examined every three weeks, as it requires about this time to go through the chrysalis state; in one or two seasons they must be destroyed if this operation should be followed up. They find their silken web very readily attach to the little fibres of cotton, and by tying the cotton cloth to the tree the wind will not disturb them.

There is still another insect which does some damage to the foliage and fruit of trees. The perfect insect is a long, dark, slender fly, with long feelers and two steerers behind; they were found on the trees as early as the 15th of March, mating; they lay their eggs in the

young bud; as soon as it opens, the egg hatched, and the young larvæ commences eating the young leaves, and curling them up, in which he makes his home. They are destroyed by applying white wash to the limbs of the tree. The white wash also kills a very destructive little insect, the eggs of which are contained in little mussel shells, on the bark of the apple and pear trees; [a species of coccus.—Ed.] I will communicate the effect of syringing the trees with the wash before the buds break, in July, when the whole effect of the experiment will be known.

Saxonville, April 22, 1850.

Notwithstanding much has been written upon the habits of these two destructive insects, (the curculio and codling moth,) Mr. Simpson's article will be found extremely valuable. His observations have been made with great care, and his experiments, in order to ascertain their various changes, have been conducted with great labor, and perhaps with greater attention than has been bestowed upon them by any previous writer. He has ascertained precisely the time when the curculio commences his operations, and the period they continue to destroy the fruit, thus placing it within the means of all to save their entire crop, by attending to the shaking of the trees, the only mode in which we think they can be successfully attacked. Mr. Simpson's experiment of syringing the trees and fruit is well worth trying, and we shall be gratified to lay before our readers the results of this plan after the season is over.

The codling moth is nearly as destructive to the apple as the curculio to the plum. And information in regard to the best means of preventing their ravages will be hailed with pleasure by all orchardists. Mr. Simpson's mode is similar to that first described, we believe, by Mr. Joseph Burrelle, of Quincy, and published in the *New England Farmer*, (Vol. XVIII, p. 398.)

If such a plan is considered too expensive, or too much trouble to be put into practice, in extensive orchards, it certainly is not in small gardens where there are but few trees, and these choice kinds. The value of perfect fruits, compared with wormy ones, is too great to allow any means to be neglected which will secure the former. Suppose a garden to contain half a dozen trees of the Red Astrachan, Early Harvest, Bough, Williams, Benonia, and Porter apples, how slight would be the expense in the saving of a whole crop.

TO PRESERVE EGGS FRESH.

Turn water upon unslacked lime, in quantity sufficient to cover the lime. In a short time a scum will rise upon the surface. Then drain off the whole water, and add fresh, and repeat the operation till no more scum rises.— Stir the lime and water, and put in your eggs,

so that they are completely covered. This excludes the external air, and preserves them in the finest order. I have now eggs that have been kept in this way eight months and on being broken, cannot be distinguished from those which are fresh laid. A lady who gave me this recipe, stated that she preserved them so, perfectly good in this way for two years.— The repeated saturations with water seems necessary to destroy the too great causticity of the lime, otherwise its strong affinity for the carbonate, the material of the egg shell, causes its decomposition.—*Selected.*

From the *Genesee Farmer*.

RESUSCITATION OF WORN OUT LANDS.

Under the above heading the American Artisan, published in the city of New York, has the following remarks:

“To repair damage already done to the soil, (of the United States,) will cost over one thousand millions of dollars.”

“Such is the conclusion of the Patent Office Report on Agriculture, on the subject of Chapter II.—‘What the country has lost by impoverishing its soils.’ This impoverishing is effected by the unwise mode of culture that takes off the soil all it can and puts nothing on. That there is a vast amount of such culture, statistics as well as observation abundantly show; and the waste of labor and loss of profit by such culture is immense, no doubt fully equal to what this report states. But its conclusion that it will require millions to restore these lands, is fallacious. The report itself refutes its own conclusion, when it states a well known fact in proof of its position, that ‘this deterioration is not unavoidable, for thousands of skillful farmers have taken fields poor in point of natural productiveness, and instead of diminishing their fertility, they have added ten cents on an acre to their annual income, over and above all expenses,’—yes, and often much more. And there is not an acre of these worn out lands that can not be resuscitated by such skillful farmers, without cost and with actual profit. The startling, unfounded position which the report put forth, that it ‘will cost on an average twelve dollars and fifty cents an acre to renovate the partially exhausted lands of this State,’ is not sustained by a single proof. There is quite a penchant in the Commissioner to make startling statements. He says, ‘a million tons of human food pass down the Mississippi, where one ton of the elements of such food ascend,’ just as if, for the production of this food, such a return of the elements of it was necessary.— There is no truth in either of the theories. The elements are in the air, water, and earth, and the process of resuscitation can be carried on not only without loss but with profit. The cost of the manure, which, as that of heaven

to the bread, will be more than returned in the crop, and the land more and more enriched each year by a right cultivation, which is ever a profitable one. The productiveness will be increased or renewed each year, much on the principle that leaven produces or multiplies itself when the appropriate materials are in contact with it. And as to the vegetative power of the earth, let there be due proportions of air, moisture, and warmth on any land, be it even nothing but sand, it will be manifested. But when aided by manure, it will be with far greater rapidity and always with profit without loss, if skilfully done; and the outlay is no actual cost in the sense of this report, when there is a profitable return over all expense of cultivation.

"The great importance of this subject to the country, is fully borne out by the statistics it gives. The yearly diminishing of production from the acre, till it becomes so little as to cause the exhausted land to be abandoned, is a wide-spread process, going on over the whole country, and well may Government resort to measures to arrest it. But alarming statements of thousands of millions of cost to do it, will not promote it, but only aid to continue it. What is wanted, is the full and enforced statement, with its proof over the whole country, that the deterioration is not necessary—that it is solely the result of wrong culture—that the abandonment of an acre is an acre of condemnation of the farmer who does it—that in fact there is within the power of every farmer the means of resuscitating every acre at a cost less than it will require to subdue new land. This should be done; and may the census now to be taken be used to effect it, and every agricultural paper, report, or society in the land, give its influence to impress on the public mind the truth that there is no necessity for this deterioration—that it is the sole effect of wrong cultivation—that the right will not only prevent it, but is far the most profitable—that the single principle of leaving half the annual vegetation on the land will enrich it, and this is all the change required. The forest is enriched from its yearly fall of leaves and dead limbs. The careful use of the grape leaves has been found ample to keep the grapery productive."

The writer of the above may know what is the "right cultivation" to prevent the "deterioration" of cultivated land; if so, his light is most effectually hid under a bushel. No one not a fancy writer on agriculture would say that "the productiveness will be increased or renewed each year, much on the principle that leaven produces, or multiplies itself, when the appropriate materials are in contact with it." But, most sage critic, suppose "the appropriate materials" are lacking in the soil or in the "kneading-trough;" what then? Will your "leaven" make wheat or bread without "the appropriate materials?" Certainly not.

When we stated that there were 8,000,000 acres of land in the State of New York so

much exhausted that twelve dollars and fifty cents an acre would no more than renovate them, calling for an outlay of one hundred million dollars, criticism was both expected and desired. The truth can only be elicited, and the evil corrected, by public discussion. To provoke this was the deliberate aim of the "startling statements" erroneously ascribed to the Commissioner of Patents. They were made by one who was born and reared on a farm in the State of New York, and who has devoted most of his life to the study of this and kindred topics. That partially exhausted soils may be improved with a profit, is a point for which we have long contended; but in New York the profit will be diminished from ten to fifteen dollars an acre, before the land can be fully renovated. If so, the injury done to impoverished fields, and damage to their owners and the State, is an average of twelve dollars and fifty cents an acre. There are twelve million acres under cultivation in New York, and from our childhood up we have seen farmers extract potash and bone-earth from this soil, and send both to distant markets, never to return. Will any man of common intelligence say that this vast area of impoverished soil contains as much of the elements of *bones*, and as much *potash* and other alkalis now, as it did seventy-five years ago? One-half of the earthy matter removed in a crop of potatoes, is potash; and one-third of that taken out of a field in the seeds of wheat, is the same alkali. Whether a farmer buys wood ashes and bones at their market price, or labors for years to draw them from his subsoil, in either case it will cost him from ten to fifteen dollars an acre to supply his surface soil with as much as God gave it before man began to till it, and *waste* its elements of food and clothing. Man has not the power to curse the earth with irredeemable sterility. But to say that to impoverish it does not involve an injury to the community, and the necessity of a loss of labor to renovate it, is simply to assert what every man of sense knows to be untrue. No hocus-pocus, "leaven in bread," will add lime, soda, potash, phosphorus, magnesia, chlorine, sulphur, soluble silica, or rich mould, to a worn out cotton, corn, or wheat field. "The vegetative power of the earth, with due proportions of air, moisture, and warmth, on any land, be it nothing but sand," is a very pleasant *dream*, but nothing more substantial. No amount of pure sand, air, warmth, and moisture, will form the bones in a man's little finger, nor the brain in his cranium. His daily bread and meat must contain other ingredients extracted from the earth.

To increase its natural productiveness is entirely practicable; but it will cost money or labor to achieve this desirable result. Nor can the end ever be attained by falsely asserting that "a million tons of human food" may be annually taken from as small an area as will produce it, without restitution, and not

deteriorate the soil. There are scores of writers on agriculture who teach this false theory, and call it science. How much an acre of land can spare of grain, cotton, or other crops, every year, without detriment, depends mostly on its chemical and geological character, but partly on its mechanical texture. Not before farmers are willing to foster the study of agriculture as a learned and useful profession, will they ever understand the true capacity of the soil to feed and clothe the human family. It is not far from the precise truth to say that they waste as much hard work, needlessly and heedlessly, every year, as all the mechanics, merchants, doctors, lawyers, and others, perform. There are in the State of New York alone, five hundred thousand tillers of the soil, who in the main work very hard to make large crops out of small materials; acting on the principle that a little yeast should give an ovenful of bread, without flour or meal! The nightsoil annually wasted in the State of New York, would make thirty million bushels of wheat, if saved, properly deodorized, and drilled in with the seed. This fertilizer is the bone and muscle of the land, drawn from its surface and thrown away, to compel the next generation to give more honest sweat for their food and raiment, or emigrate to the virgin soils somewhere this side of snu-down.

THE NEW CENSUS LAW.

The new census bill is published. It authorizes the Secretary of the Interior, as soon as the census is complete, to ascertain the aggregate representative population of the several States, and divide the aggregate by the number two hundred and thirty-three; and the product of such division, rejecting any fraction of a unit, is declared to be the ratio or rule of apportionment of representatives in Congress. The feature in the last apportionment act which, provided where a fraction in any State exceeds one-half of the ratio, an additional member should be allowed is stricken out from the new law.

The compensation allowed the U. S. Marshals for their service in executing the act, is, in states where the population exceeds one million, one dollar for each thousand persons, and where the population is less than a million a dollar and a quarter per thousand is allowed. The deputies are allowed two cents for each person enumerated, and ten cents a mile for necessary travel, "to be ascertained by multiplying the square root of the number of dwelling houses in the division by the square root of the number of square miles in each division." They are also allowed, in addition, "for each farm fully returned ten cents; for each establishment of productive industry taken and returned fifty cents; for the social statistics two per cent. on the amount allowed

for the enumeration of population; and for the name of a diseased person returned two cents."

The returns are to be made to the Secretary of the Interior on or before the first of November next.

VIRTUES OF MILK.

It is a most perfect diet. Nothing like it—it contains curd casein, which is necessary for the development and formation of muscle—butter for the production of an adequate supply of fat—sugar to feed the respiration, and thereby add warmth to the body—the phosphates of lime and magnesia, the peroxyde of iron, the chlorides of potassium and soda, with the free sodi, required to give solidity and strength to the bone—together with the saline particles so essentially necessary for other parts of the body. It contains lactic acid, or the acid of milk, which chemists inform us is the acid of the gastric juice, so requisite for the proper dissolving our food in the stomach. It is therefore obvious that milk should be chemically correct in all its constituents, and that its beneficial effects on the constitution should not be neutralized by adulteration; it is, Dr. Prout properly states, "the true type of all food." How necessary, therefore, is it that it should be pure; otherwise this wonderful and wise provision of Providence will be a curse rather than a blessing.—*Bugg's Observations on Milk.*

From the American Farmer.

DRILLING IN WHEAT.

Mr. Editor,—As the time will soon arrive for farmers to decide on the mode of seeding their fall grain, and, if to be drilled, to supply themselves with a good drill, I hasten to give the notice I promised you on the experiment I made last fall, with "Pierson's drill," which I obtained of Ezra Whitman, Jr. and as your columns may be crowded, I will be very brief at present, and give you a more extended notice after I have finished threshing my grain.

I seeded fifty-five acres in wheat, in St. Mary's county, Maryland, with the drill, under the direction of a good practical farmer, from the 15th of September to the last of October, (the early seeding was best,) the most of which was seeded on wheat stubble, fallowed and ploughed with a one-horse plough the same way; some drilled across the ploughing and some lengthwise. It was not found necessary to harrow before drilling.

Three acres were not fallowed until late in September, when a growth of weeds was turned in which was three feet high, and drilled after a shallow ploughing. The rest was drilled corn land; the corn was cut off, and the land ploughed with a one-horse plough,

and the wheat drilled without any further preparation. The drill worked delightful on all, except the three acres referred to, and on that the wheat was well drilled, but with some extra labor in keeping the tines clean. We drilled one and a quarter bushels Mediterranean wheat per acre, and it was sufficiently thick, and one and a half bushels of Etrurian wheat, which was too thin; both came up regular and stood the winter better than ploughed-in wheat. The two lots of Mediterranean are now threshed—one of twenty-six acres yielded over eighteen bushels per acre (the best sample I have seen this year)—the other of nine acres yielded nearly twenty-one bushels per acre, which was a good yield, considering it was in a neighborhood where the rust has very seriously injured the wheat crop, and I think the yield must have been increased from two to four bushels per acre by the use of the drill, with a saving of one-third of a bushel of seed per acre. I am so well satisfied that there is a gain of the cost of the drill (one hundred dollars) for every one hundred acres of wheat drilled on good, fair land, that I would not be deprived of the use of one, if it cost me that amount, but from my present knowledge, I would think that the use of a drill will not cost (interest included) over twenty cents per acre.

Yours, with much respect,

R. N. MILBURN.

Baltimore, July 24, 1850.

GAPES IN CHICKENS.

About a year ago, a correspondent of the Dollar Newspaper, published an article on the above named disease, and tried to prove, (and no doubt believed) it to be the dyspepsia. He said that a brood of chickens, hatched and reared about an old out-building, was all healthy and free from gapes, while those raised in the neighborhood of the dwelling or dunghill, were nearly all affected with that disease. I have raised some thousands of chickens, and in different places. My experience is that they are not liable to gapes about a new building, especially on newly cleared land. There is something about fresh land congenial to the health of poultry. I have thought it might be animal food in the shape of insects, &c. or that it might be rotten wood. Be this as it may, I am fully satisfied that the disease is not dyspepsia, from the fact that I have seen it cured in five minutes, at the house of an acquaintance, in a village a short distance from my residence, when a chicken, as nearly as large as the robin was sent in from a neighbor, in the last stage of the gapes. I asked the lady if she could cure it. She said she had cured many, but that looked like a hopeless case.—However, she would try. She took the chicken in her lap, drew a feather from its wing, stripped it to within about half an inch of the

point, turned the chicken on its back, with a portion of the bill in her thumb and finger, while a little girl held the other; she then ran the feather down its throat and gave it a quick twist and jerk, and drew out a red wiry worm about an inch long. The poor thing seemed exhausted, but in less than a minute, it gave a kind of cough or two, and discharged a small quantity of blood, in five minutes was eating, and to all appearance, perfectly restored.—Several others of my acquaintance, practice the same method with success.

This is the disease and one of its remedies; but what should cause it in one locality and not in another, is more than I can divine.—Limewater and coarsely ground corn are considered by some persons, as a partial preventive.—*American Agriculturist.*

FENCING AND DITCHING.

This letter is too good to keep in the dark, so we have marked out "Private," run our pen through the place, blotted out the name, and give it to our readers, who will thank us for it. The writer is one of our dearest friends; and long may he live to enjoy his beautiful farm.

Friend Peters,—The "Wool Grower" is a good paper, and, I presume, it is to succeed beyond your most sanguine expectations when you started it. You have taken upon yourself to perfect the wire fence, and you must do it; and when you have done it, let me know, and I will go to Buffalo to see a specimen, for up to this time I have seen none that would answer for me. I am making stone fences, from stone that I quarry and draw from fifty rods to three-quarters of a mile, to the place where it is required for outside fences. I think I have hit upon a very good plan as regards thickness, height, &c. I put stone about forty inches long, (or if you measure lengthwise of the wall, wide,) and about three inches thick, on the surface of the ground, and then on the centre of this foundation commence my wall thirty inches thick, and carry it up four feet above this foundation, leaving it ten inches thick on the top, and slanting the same on each side.

This wall requires 96 19-100 cubic feet for a rod; or about two loads of a good team. It cost about seven shillings a rod to quarry and lay up, and from four to six shillings, or perhaps, from three to six shillings a rod to draw the stone, making the wall from ten shillings to thirteen shillings a rod, according to the distance from the quarry. The reason for my flat stone under the wall, is that our ground is so soft that walls settle into it, and for the further reason that in this way I get a light though wide wall, which will not be likely to turn over.

You will say that my fence costs too much, to which I must reply, it is durable, and if it

should require re-laying, the material is indestructible.

I tax myself with the making at least fifty rods of this fence every year; and commonly I make more. Time will bring about what I am aiming at—a well fenced farm—and whether I see it myself or not, I flatter myself that the next generation will. My quarry is in the wood lot, and I commenced by putting a wall around the woods, and along the line of my farm, which was most distant from my house, and having made my back fences good, I now build where most required. On the back side of my farm I have nearly three hundred rods without angles.

It is not every farm that has a good quarry, and my plan cannot become general, so I look with great interest to your wire fences; and, as I said before, I will go to Buffalo as soon as you notify me that you have a good one to show me.

I have had some experience in constructing underground drains; and as I am writing about stone work, I may as well give you my plan of laying the stone for the drain. I do not claim any merit for myself in regard to it, as it is the common drain here.

The ditch should be two and a half feet deep, and about a foot wide on the bottom, and say eighteen inches on the top. Place a stone on each side of the bottom, say three or four inches in thickness, and over, and partly between these put, not a flat stone, but a stone that has a rounding side, which bowing down between the side stones, while the ends are supported by them, will keep every thing into its place. It is necessary to put a stone at each end of the cap stone, which will reach from it to the back, and then fill up about one-half of the depth of the ditch with small stones, and the earth being put on, the thing will be finished. A man who understands the business will readily select his stones as they are laid along the bank, and lay from twelve to twenty rods in a day.—*Wool Grower.*

THE FIRST NEWSPAPER.

It is somewhat remarkable that the newspaper press, powerful element as it is in modern civilization, is scarcely two centuries old. It is equally remarkable that a means of instruction and amusement so apparent should not have been established until nearly two hundred years after the discovery of printing! The common belief that the first English newspaper was published in 1588, to announce the defeat of the Spanish Armada, is now known to be a popular error, the printed sheet in the British Museum, called the English *Mercurie* and dated in that year, having been proved a forgery of a century later date. The originator of the mistake was Mr. Chalmers, who, in his life of Rudiman, entered into the history of newspapers. He had seen

the broad sheet in the Museum, and, accepting it for what it pretended to be, had announced it as the first English newspaper. Nichols, D'Israeli and other writers, followed Chalmers, without inquiry, and from these authors the error crept into the Encyclopædias, and all the books of the day in which newspapers were discussed. Few assertions are now perhaps so generally believed as that the English *Mercurie* was the first English newspaper.—The detection of the error we owe to the bibliographer, Mr. Watts, of the British Museum, who, having occasion to examine the *Mercurie*, saw at once that the type and paper were of comparatively modern origin—an opinion which had been confirmed by every subsequent examination, and it has been freely scrutinized by capable judges since.

The first newspaper was issued towards the close of the reign of James the First, and was published in London by a man named Butter. This individual had been a hired letter writer, in the pay of numerous country gentlemen—his business being to pick up the news of London and send a written sheet of it weekly to his employers. The thought finally struck him that he might serve his customers more quickly, and enlarge his business indefinitely by printing instead of writing his sheets. At first, however, the enterprise met little encouragement. The English are not a people fond of innovations, and the old manuscript letter sheets were generally preferred. Butter's paper was laughed at by the wits and ill supported by the public. Ben Jonson in his comedy, "The Staple of News," made the new journal the butt of his ridicule. Finally, however, the invention became better appreciated, and newspapers increase in size, merit and number; and so late as the beginning of the last century the written news letter was still in existence, the delight of antiquated country gentlemen, who worshipped it as a relic of "the old times." In 1709 the first morning paper appeared in London, and now discussion was combined with news, for heretofore the journals had confined themselves entirely to the mere narration of events, and, those chiefly foreign. Indeed more than one editor had been severely punished for printing news about the government; and so late as 1710 a lad of nineteen was hung for publishing an article against hereditary right.

Prior to the issue of Butter's journal, there had been various gazettes, as they were called, published in different countries in Europe; and there is a popular impression that these were newspapers. But such is not the fact. The gazettes were merely occasional broad-sheets, or pamphlets, published after some important event, as a proclamation is now published. They were not at all permanent, much less periodical in their nature, two important qualities requisite for the real newspaper. Nor was it until the age of Addison, Steele and Swift—as we said—that journals began to assume their present influential posi-

tion. When these great writers, however, entered the list as regular contributors to the newspapers, and were followed by Bolingbroke, and in a later age by Junius, the public press at once took a lofty position, and one which it has since maintained, and even increased. In England, however, to this day, the newspaper has less influence than in either France or the United States. In the free country it is really the great parliament of the nation, where all important subjects are discussed, and virtually decided. Congress is, in fact, but the formal mouth-piece of the press, or, to speak more definitely, of the people controlled by the press. The day will come when to be a member of this fraternity will be a higher honor than to be a legislator, and it is even now a more influential position. Long live the press.—*Philadelphia Evening Bulletin*.

A PERMANENT PASTURE.

We have been asked, "What grass seeds we would sow to form a permanent pasture, and in what quantities per acre?" Our reply is: In the first place, we would sow in the month of August, after having first manured the land well, ploughed it deeply, harrowed and rolled it thoroughly, so as to bring it into the finest possible tilth, ten pounds of timothy seed, half bushel Kentucky blue grass seed, one peck red top grass seed, one bushel of orchard grass seed, half bushel of perennial rye grass seed, and one quart sweet scented vernal grass seed.

The above grass seeds to be thoroughly mixed together before being sown, and, when sown, to be lightly harrowed in, and rolled.

If the ground had not been recently limed, in the course of the winter, when the ground was sufficiently hard from frost to bear the team without injury, we would haul on and spread fifty bushels of lime, or one hundred of marl per acre.

In the succeeding spring, when the frost was fully out of the ground, we would sow on each acre eight pounds red clover seed, and roll that in, so as to cover it, and consolidate the ground. A pasture thus formed, should be permitted to remain for the first year ungrazed and untouched by the scythe. If thus managed, it would form a permanent pasture—one which would last for a lifetime—of the most luxuriant character; provided every second year it was treated to a top-dressing, in which a bushel of salt to the acre formed one of the elements. Whenever top-dressed, the pasture should be harrowed and rolled. He who forms such a pasture will have done an act of justice to his stock, obeyed the promptings of humanity, set an example to his neighbors, and cannot fail to put money in his pocket.—*American Farmer*.

CORN AND POTATOES.

The idea advanced by some that potatoes planted in rows alternating with corn, would prevent the potato rot, induced many last year to try the experiment. As the potato disease did not prevail so extensively during the last season as usual, the results of the experiment in this respect are not so definitely ascertained as we could wish.

It has also been believed, by some, that there is a better mode of raising these two crops than by planting them separately.

We have been reminded of this idea by reading the address delivered by Mr. Newhall before the Essex County Agricultural Society, at their last Cattle Show. We find that he advances the same idea, and brings forward some facts corroborating it. Premiums had some years ago been offered by that Society for mixed crops of corn, beans, potatoes, &c. Mr. Newhall says: "But one premium had been claimed, which was for corn and potatoes planted in alternate rows; the experiment made at the time, by measurement of land and produce, showed that the mixed crop yielded some nineteen per cent. more than that planted separately. The corn and potatoes planted in this way were mutual helps to each other, the potatoes shading the roots of the corn and protecting it from the effects of drought, and the corn in the months of July and August screening the potatoes from the rays of the sun. The crops planted in this way, adding the value of potatoes in corn, yielding from eighty to one hundred bushels per acre."

Mr. Newhall quotes a remark of Lorain on this subject, who says that he "frequently planted Indian corn in single rows, eight feet asunder, and dropped single corn two feet distant from each other in the rows, so as to stand in single plants. When the corn was ridged, potatoes were planted in the clearing out furrows which were filled with rotted dung, and closed by two furrows backed over the potatoes by the plough. I have had repeatedly forty bushels of shelled corn, and one hundred and fifty bushels of potatoes to the acre. In weight the corn always exceeded the best corn cultivated in the common way. The mode was suggested to me by General Washington, who told me that he had great success in it."

It is also probable that another reason why these two crops are better (taking it for granted that there is no fallacy in the above named experiments) is this: The air can circulate freely through them and the sun also have its genial effect, while the mutual shade which one crop gives to the other, tempers its rays and prevents any excess of heat which would be injurious; in other words, the temperature is more uniform.

This experiment is so easily tried, that we hope it will be more generally instituted next summer, and its results noted.—*Maine Farmer*.

RADICAL CURE FOR CORNS.

In the number of *L'Abeille Medicale* of the 15th of April, M. C. Matton proposes a mode of curing corns, without a resort to cutting instruments. He advises that the feet be soaked in water for a short time, and the most projecting part of the corn be taken off with a penknife, or with the fingers; a stick of nitrate of silver moistened at the free extremity is then to be pressed slightly over the whole surface of hardened cuticle, and even a little beyond on the sound skin. The part to which the caustic is applied, should then be well dried and let alone for ten days. A very slight and hardly perceptible vestication takes place which, however, is soon absorbed. At the end of eight or ten days, by making some slight tractions with the fingers, or a pair of dissecting forceps, from the circumference to the centre of the eschar, we may remove, without the slightest pain, the hardened epidermis, so completely as to leave no trace behind. M. Matton pledges himself that those who try his plan will be certainly and radically cured.—*South. Med. Journal.*

For the Southern Planter.

MACHINE BANDS.

Mr. Editor.—As many valuable hints appear in the Planter there is one, though small, ought to have a place in it. It is the leathering of the whirl on a wheat thresher. It is well known after it has been used some time it becomes as sleek as a piece of polished steel, and the belt has to be kept very tight to prevent its slipping, (which is not always prevented even with a tight belt.) If the whirl is leathered it will prevent it. Many plans have been tried, such as sewing, putting on with screws, &c. to keep the leather on the whirl, all of which parted, or did not answer well. If any person wants a leathered whirl let them apply to Mr. H. M. Smith, that well known machinist, he will fix them one that will last for years. Whoever tries it will never be without leather on their whirl. I speak from several years' experience.

A FRIEND TO IMPROVEMENT.

July 30, 1850.

From the Ohio Cultivator.

MILK CELLARS.

Farmers about to build a dwelling should know that, by carrying up a large flue (twelve inches in diameter and circular is the best) in the chimney-stack from the cellar, and having a window or two opening to the north, or cold side of the house, out of the cellar, they can have as good a "milk room" under their house

as could be had over a spring, that may be perhaps two hundred yards or one-fourth of a mile off; which is so pleasant to go to in bad weather, especially by the female portion of the family.

The floor should be flagged with stones, as they can be kept sweeter and are colder than either bricks or cement, which absorb "spilt milk," and thus taint the atmosphere. The walls and ceiling should be plastered, to facilitate whitewashing and cleansing. Nothing but milk and cream should be kept in the room, as a pure atmosphere for cream to rise in is absolutely essential to the making of sweet butter.

What is needed to have a cool, sweet cellar, is a current of air, which will be secured by the aforesaid flue and the open windows—as a strong current of air is at least ten degrees colder than the same air at rest.

Churning.—Farmers ought to know that churning can be done with any good churn in five to fifteen minutes, as well in winter as summer, by having the temperature of the cream right—say sixty to sixty-two degrees. The temperature of an ordinary sitting or living room, in winter, to be comfortable, is sixty-five to sixty-eight degrees, and a closet opening into such a room would be the best place to keep the pot in the winter. In the summer the cream can be readily reduced to the right temperature, by breaking up clean ice and putting it into the churn.

A thermometer, which is necessary to regulate these matters, costs but one dollar; and such an investment every farmer ought to make, who has churning to do, and thus save labor and time, which is money, and make this much-dreaded part of the duties of farmers' wives and daughters much pleasanter and easier—and for this I know they would thank your modest correspondent, if they knew him.

THINNING FRUIT.

Those cultivators who have not had much experience in raising fruit, neglect to thin it; consequently, their fruit is inferior, both in size and quality, and the quantity no larger. Owing to its inferiority, it sells at a much less price than it would under judicious management.

One peach-grower informed us that he had taken off two-thirds of his peaches, and as they increased in size, and appeared too thick on the trees, he said that he was sorry that he had not taken off one half of the other third. One man complained to his neighbor, that a certain variety of the peach which his friend had advised him to cultivate was a poor bearer. "Stop your complaint," was the reply, "until you sell your fruit." He raised on one tree three dozen of peaches, sold them at two dollars per dozen, and was satisfied.

In many cases it is necessary to thin fruit,

reducing it, sometimes, to one-half the specimens, and sometimes a still greater reduction is necessary. Besides the injury to the fruit from too large a crop, the tree is also injured by exhaustion, which will stunt its growth, render it unhealthy, and cause light crops in future, particularly in the next season.

Experience in this business is necessary, for but very few persons can be taught, by precepts, the great importance of thinning fruit; so they will go on allowing too much to remain on the trees, till they gradually learn, from practice, the good effects of thinning.—*New England Farmer.*

CUT-WORMS.

Some correspondent of some paper kills cut-worms thus:

I was quite successful last spring in forcing tomatoes, cabbages, &c. In May I commenced transplanting them in my garden.—Beautiful plants they were, too; and as I grew them myself I felt quite proud of them. A day or two after this, upon going into my garden, I found the varmint that had destroyed them; smashed their heads and re-planted.—But off they went again. I could kill the cut-worms, but that did not replace my plants. A new idea struck me. I pulled a few handfuls of clover, and laying a small quantity at the base of each plant put thereon a chip. By this simple contrivance I trapped the whole brood of rascals, and saved my plants.

The philosophy of this is: the cut-worm prefers the green clover, which will keep so for about a week, under the chip, and every day or two you can hand the worms which collect there over to the tender mercy of the old hen and chickens. The trouble of doing this is much less than re-planting.

H. M. B.

COMMON SCHOOLS IN DIFFERENT STATES.

New York appropriates annually to Common Schools \$800,000. In addition to this she supports a large Normal School, a State Superintendent, a Teacher's Institute, and a Common School Library for every district in the State. On the first of July, 1848, she had in her district libraries 1,338,848 volumes. The total school fund is \$5,378,141, yielding annually \$322,688. The whole sum of public funds subject to apportionment among the school districts in 1848, was \$858,594, \$535,906 of which had to be raised by taxation; a sum two and a half times as large as our entire appropriation; and all this while the public debt of the State is very little short of *twenty-four millions*. The balance of the income of the United States Deposit Fund is

appropriated to the support of Colleges, the Normal School, Indian Schools, Teacher's Institutes, &c.

The Legislature of Connecticut at its last session appropriated \$10,000 for the establishment of a *State Normal School*, "for the training of teachers in the art of instructing and governing the Common Schools of the State." The Principal of the Normal School is *ex officio* Superintendent of Common Schools and is bound to hold a convention in every county in the State once a year for the instruction of teachers. The number attending the Normal School is limited to 220, to be selected, one from each school society. Tuition free.

Maine appropriates annually \$2,600 to the support of Teacher's Institutes. New Hampshire for the same purpose \$1,500; she pays likewise for "Raicer's School of Instruction" \$3,795; and raises by tax for the support of schools \$159,430.

Pennsylvania with a population of about 2,250,000 appropriates to schools about \$701,731; more than \$500,000 of which is raised by taxation.

The Legislature of Mississippi has recently appropriated \$200,000 to the support of free schools for the year; and may every year appropriate a sum not greater than the State tax, which for 1847 was \$379,735.

Louisiana at an extra session of the Legislature in December, 1849, appropriated for public schools \$550,000, and \$10,000 to *support public schools for free colored children*. The Superintendent of Common Schools, Rev. Alex. Dimitry, receives a salary of \$3,000. The white population of the State is about 500,000; colored 200,000. This is, therefore, a very munificent appropriation; and in the ratio of population, is about eight times as great as that of Ohio.

The Constitution of Iowa provides for a Superintendent of Education, who shall hold his office three years. The Constitution of Kentucky also provides for a Superintendent of Common Schools. Also, the Constitution of California provides for a Superintendent of public instruction, and fixes his salary at \$3,500. Wherever new States are forming Constitutions, or old States re-modelling theirs, we find provision for the great improvements in instruction demanded by the age.—*Prairie Farmer.*

He is a public benefactor, who, by the prudent and skilful outlay of his money in bettering its condition, shall make a single field yield permanently a double crop; and he who does this over a square mile, virtually adds a square mile to the national territory—nay, he does more; he doubles, to this extent, the territorial resources of the country, without giving the State any larger actual area to defend. All hail, then, to the improvers of the soil! Health and long life be their fortune—may

their hearts be light and their purses heavy—may their dreams be few and pleasant, and their sleep the sweet repose of the weary—may they see the fruits of their own labor, and may their sons reap still heavier harvests.

EXPERIMENTS IN THE CULTURE OF BUCKWHEAT.

In our issue of August, 1849, we published a few paragraphs on this subject, in which we described an experiment then about to be made with buckwheat and rye, seeded together in the corn field, at the time of laying by the corn crop. Half a bushel of each were sown in the corn rows, and received no other covering except that afforded by running the cultivator through the balks. The land (half an acre) is chiefly hillside and ravine flat—that is to say, it slopes from near the top of the hill to the margin of a spring branch. The buckwheat soon vegetated and appeared, with its young, but broad leaves, above the surface of the ground, and quite regular, when we consider the manner of putting it in. The rye could not be seen except by closely inspecting the soil. The two crops, however, grew up together; the buckwheat, of course, taking the lead and overshadowing the rye. The crop of corn was taken off at the usual time, and the two other crops remained. So soon as the frosts of winter prevailed, the buckwheat was killed and its stalks, stems, leaves and buds all fell upon the ground, as so much enriching vegetable matter. Under the protecting foliage of the buckwheat, the young shoots of rye had, by this time, acquired root and strength sufficient to enable them to pass through any winter. They matured early, and the crop was cut off, fully ripe, before the most forward wheat of this year was ready for the sickle. The stalk was exceedingly tall, and the grain firm. The product from half an acre was seven bushels, or fourteen for one of seeding. If, however, we consider the half a bushel of buckwheat as thrown away, the increase is seven for one—not so bad. But the seed buckwheat was not thrown away, since it returned more than an equivalent of vegetable manure to the land. So much for rye and buckwheat.

The present year, half an acre was cut off from the corner of a field and the clover there

growing (which was luxuriant) not cut. The plan intended for the remaining clover was to cut the first crop and plough in the second preparatory to sowing wheat. This half acre was fallowed and buckwheat sown upon it. At the time of present writing (August 15) the crop is of vigorous growth, and bids fair to give a large yield of grain. It will be harvested for seed at the proper time. This experiment is instituted to determine, 1st. Whether the sacrifice of a heavy first crop of clover is not compensated for by having it turned under the sod, and by the buckwheat (grain) which is reaped for use. 2d. Whether the land do not, by this mode of treatment, become better prepared to receive a wheat crop than if it were fallowed in the latter part of August, and re-fallowed in October, it being of course exposed to the action of a hot sun during the entire interval between the two fallowings. 3d. Whether the ground will not be in better order for seeding wheat after the buckwheat is cut clean, than it would be if fallowed (clover or weeds) once, and that immediately preceding the seeding. We hope to present the result of this experiment to the readers of the Planter, when the time for ascertaining it shall have arrived.

The use of buckwheat—a few grains being scattered along the drills—is familiar to some of our best turnip growers, as a preventive of the ravages of the turnip fly, which dislikes and avoids it. We know that it had efficacy in that particular last year, which was a highly favorable year for turnips, particularly the ruta бага. On the same farm, where two patches contiguously situated were sowed, one with and one without buckwheat, the latter was superior.

In another experiment, not made with reference to buckwheat, but to try the effect of fallow in summer cow-pens, it held its own against the well known black-eyed pea. Three spots adjacent, upon each of which cows had been penned during the night for two weeks, and then removed were taken and two of them fallowed late in September. One was seeded with buckwheat and one with peas. Neither afforded any green manure worth speaking of, because the frost cut down both crops. The third lot was left undisturbed. Corn was planted on all three this spring. That upon

the lot which was not ploughed up last fall is decidedly the best; whilst the buckwheat and pea fallows stand about equal.

RATSBANE—A SETTLER FOR THE MILLION.

For the benefit of all who may hereafter fall victims to the rapacity of rats, I will now, as briefly as may be, lay before them my military tactics, and explain how I finally brought up my *corps de reserve*, which gained me a decisive victory. Instead of commencing hostilities at once, on discovering the extent of the ravages committed, I gave encouragement to the enemy, by throwing in his way divers articles of food, such as drippings, lard, meat, bones, fish, and other dainties. This gave him confidence, and threw him off his guard, so that he revelled unsuspectingly among all the good things of this life, while I was secretly plotting his destruction. I took care, meantime, to secure all the hen houses, and shut the inmates up every night, to protect them from their blood-thirsty foe. The great field day was Friday last, a day I shall long remember—I devoted entirely to strategy. *Nil actum reputans siquid superesset agendum*, [Thinking that nothing was done if any remained to do.] I completed all my arrangements before the hour of dusk, impatiently waiting for the rising sun of the morrow.—Poison was my weapon; fresh herrings and sprats were my aid-de-camp. The poison was carbonate of barytes, ground to an impalpable powder, and phosphorus. An incision was first made in the backs of the herrings, and the carbonate of barytes well rubbed in. The parts were then, as artistically as possible, reunited. The sprats being smaller than the herrings, and more plastic, were pierced through their sides with a sharp piece of deal wood. Had a knife, a fork, or the human hand touched them, all would have been vain. The barytes was then “drilled in,” and other sprats not poisoned, were placed above and below them, so that the suspicion was disarmed. “*Latet unguis in herba!*” [There was a snake concealed in the grass.] It should be borne in mind that the barytes is without taste and without smell; hence its great value. The way in which I applied the phosphorous would take more space to detail than you can well afford in one number of your pa-

per. At a future time, I will gladly furnish particulars of this, and other interesting matters, connected with my recent experiments, for I have been both a “sapper” and a “miner.”

When the preparations were all completed, I stationed my trusty messengers in every part of the garden and shrubberies—some under trees, some in flower pots, some hidden by a brick, others partly imbedded in the garden walks, &c. They “did their bidding” right bravely. On coming down stairs, the morning following, I found the enemy had fallen into the snare. There was a serious diminution of the provisions furnished for their repast, and the hand of death was observable on every side. They had eaten ravenously; they had been siezed with cruel thirst; they had sated themselves with water; they had “burst their boilers!” To use an expressive, and most appropriate classical quotation, there was a visible “*Decessio pereuntium—successio periturorum*,” which clearly proved I had won the day. In a word, two days and two nights had effectually routed the whole army, and I was left master of the field. If it be urged by some, as perhaps it will be, that I am cruel, consider the aggravation, an unprovoked and brutal attack upon a large affectionate family of sleeping innocents, who were ruthlessly snatched from their beds at midnight, torn limb from limb, and their agonised bodies crunched; aye, crunched is the word, between the fangs of murderous assassins—Oh! “had they ten thousand lives, my great revenge has stomach enough for them all.”—*Agricultural Gazette*.

COTTON CROPS.

The *Mobile Register* states in which all the accounts in our exchanges occur in representing the crops, especially of cotton, to be in a precarious condition. The great complaint is the superabundance of rain, and consequently the crops are “in the grass,” with but slight probability of their extrication. Every one knows that to rescue either cotton or corn when the grass is getting the ascendancy, hot or dry weather, is indispensably necessary. But instead of this, for several days past, we have had deluging rains, so that on many plantations, the strong probability is, that the grass will get the entire master of the planter. We dread the accounts to be expected from the country during this and the ensuing week.

For the Southern Planter.

TWO BLADES OF GRASS, &c.

Yes, Mr. Editor, whilst politicians are babbling and scrambling after office, let us act the noble part of teaching the art of making two blades of grass to grow where only one grew before. It is either pride, or selfishness, or laziness, which withholds the hand of any man from publishing that, the knowledge of which, might be a benefit to mankind.

By deep ploughing I have made some of my lands to produce from two to ten, where only one grew before. Even sandy lands are improved by deep tilth; but clay lands, deeply ploughed, will in dry weather absorb much ammonia and other enriching matter from the atmosphere; and the poorer the land and larger the clods the more atmosphere will be absorbed. If this be so (and no reflecting man will doubt it) then no man should hesitate in the premises, but get ready and go to work with a strong team and plough. It is true, nevertheless, that some red clays although rich in ammonia, and deeply ploughed, remain yet stiff and clammy, to the injury of the crop; but such can be made porous by ploughing down any kind of vegetable matter. Both white and ash colored clays broken deep in spring, and left to the operations of nature, will in two years, without other help, absorb ammonia sufficient to make them rich and porous; provided the clods are not interrupted, nor a crop taken from the land. But to hasten the operation so as to attain the object in half this time, it is only necessary to sow on each acre about two bushels of marine salt, (common salt,) and one of plaster. The salt will oxidize the particles of iron in the earth, thus adding ammonia, and the plaster will force a heavy crop of weeds and grass, thus adding vegetable matter. Remember that for this purpose the ploughing should be done in spring, and when the ground is wet; so as to leave the clods as large as possible. Now suppose the ploughing, salting and plastering to cost two dollars the acre, and the second year a crop of oats taken, how might stand the case?

Land improved, produce 25 bushels	
to the acre, at 35 cents, is	\$8 75
Improvement worth	3 25
	<hr/>
	\$12 00
Land not improved, produce 10 bushels	
the acre, at 35 cents, is	3 50
	<hr/>

Clear gain one year, \$8 50
And the annual profit to increase to the end of time, if the land is properly managed.

I have noticed on the canal, some twenty to fifty miles above Richmond, many lots of ash colored clay land, which in their present condition cannot yield a profitable crop of any kind. If these were mine I would manage them thus. With three or four horses plough into beds of sixteen feet width. First year,

salt, plaster, no crop. Second year, oats and grass; the following done in January or February by like team and plough, as above, and casting the beds higher. Third year, rest in grass, only grazing lightly. Fourth year, wheat or corn, and afterwards as you please. The beds, after the wheat or corn, can be reversed, and after two or three more elevations the crowns of the beds will be near three feet above the original water furrows; and thus the land will be sufficiently dry, healthy and rich for wheat or any other profitable crop.—Lands which produce no profit, are to the holder worth absolutely nothing. Rich lands, lying well and convenient to market, have never yet, in Virginia, sold at their value, particularly on the Blue Ridge. The owner of poor lands, who is too indolent or poor to improve them, should sell to a man of energy. The owner of rich lands, in a healthy locality, should keep them, for he cannot do better.

On very poor land for improvement alone I would sow red top, and rib wort, or narrow plantain. The best hay grass, on ordinary white or ash colored land, is the red top. On rich wet bottom I would prefer the velvet grass; or the red top will do very well. For rich and warm dry land I would prefer red clover mixed with orchard grass or Kentucky blue grass. For cold localities timothy is excellent.

For grazing purposes alone, the greensward and white clover is superior, but if it be intended that these should take naturally, it is perhaps more advisable to sow artificial grasses, that these may check the growth of pests, such as cinguetfoil, sheep sorrel, &c. and serve also for pasture till the natural grasses have possession.

All surplus straw should be sprinkled lightly over poor places of the oat crop, over which sow one bushel of plaster to the acre, and at least two blades may be expected where only one grew before. And here, I would remark, that the cleaner and purer the straw for this purpose the better; for surely that which is best food for a cow, is also best food for the earth.

The best time for sowing grass seed with wheat or rye, is on snow in the month of January or February. By sowing on the snow it is done the more perfect, and by sowing thus early the frosts will put in the seeds to the proper depth, and the grass will have sufficient root to withstand the frost of the following winter. If grass seeds be sowed with oats, then both should be sowed early and at the same time, and harrowed in.

I am the advocate of thick planting and sowing generally, but especially would I sow grass seeds thick, that thereby full possession may be taken to the exclusion of natural grasses and weeds. I speak from experience.

ZA. DRUMMOND.

Amherst, 1850.

TO COUNTRY GENTLEMEN.

It has always been a matter of surprise to us, that the gentlemen of the United States do not pay more attention in adorning their show grounds with fine, high-bred animals, of different kinds and breeds.—Our Creator did not leave Eden thus desolate; but after adorning it with every plant, and shrub, and tree, bearing fruit and flower, he also stocked it with “every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them.” “And Adam gave names to all cattle, and to the fowl of the air, and to every beast of the field;” and we have no doubt, that, with himself and the beautiful Eve, it was one of their chief delights to surround themselves with this living creation of beasts and birds, in their daily rambles through the exquisite parks and gardens of Eden, and to watch over and care for them.

Among the noblemen and gentlemen of Europe and their accomplished ladies, this is ever the case; they would think their parks and show grounds desolate enough, unless adorned with various kinds of domestic animals of *high-bred* race. Even the most powerful potentates do not consider such things as beneath their attention. We have seen high-bred cattle, petted and cared for with the greatest attention by the Emperor Nicholas, of Russia, in his superb park, at the Sarskosella, his favorite summer residence. Prince Albert and the Queen of England possesses them in great variety at Windsor Park, and even at their marine residence, at Osborn House, on the Isle of Wight; and what is most strange to American eyes, is to see herds of noble shorthorns, and flocks of Southdown and Leicester sheep, pasturing in the parks of populous London, greatly to the delight of its numerous citizens, and evidently at as much ease as if on one of the most retired farms of the kingdom. Breeding and rearing fine high-bred stock is the heartfelt delight of English people; and we can add, also, one of their most profitable occupations; for they not only derive vast benefit from it themselves, but they make the whole world tributary to them in the way of purchasing.

The first thing with us, after obtaining possession of land, would be to stock it with improved animals; the second, to plant choice trees and flowers; the third, to erect a handsome house; and the fourth and last, elegantly furnish it, especially

with a well-selected library. Usually all this is reversed with our countrymen.—First comes a great, staring, ill-constructed temple of a house; second, gaudy furniture; third, a gravelled path or two and a few trees or flowers; fourth, stowed away in an old shed or secluded pasture, some three or four mean, slab-sided, coarse, raw-boned cows whose only merit is giving a big mess of watery milk! Not a chick, not a rabbit, not a pet lamb, not even a musical bossy calf, frolicking colt, nor dappled fawn, sets foot on their ground; they have no taste for such; and, besides, they are dreadful 'fraid it would be *vulgar*.—Thus all about them is in a measure uninhabited and desolate. We have occasionally known the boys to rob their nests, and then stone away or shoot every bird that made its appearance on their ground.—But, for the honor of our countrymen, we will add that this is very rare. Nine tenths of those who are seen prowling about the pastures, woods, and fields, in the vicinity of our large cities are foreigners.

From the Ohio Cultivator.

MY DAILY JOURNAL.

Mr. Bateham.—I keep a daily journal and would recommend to every farmer who can write a scrap, to keep one. At the head of each page I first put down the day of the week, for example, Monday, June 24th, 1850; next the kind of weather, cold or hot, wet or dry, frost or snow, cloudy or sunshine; next the kind of work I and my hands perform on the farm daily, noting at seed time the number of acres sown in wheat or any other kind of grain, and the number of bushels sown to the acre; and at harvest time I note down the number of dozens cut, bound and shocked each day, also the money (if any) that comes in, and the money paid out, and a variety of other matters. But I know that many say they cannot spare the time to journalise; but I answer, there is such a thing as redeeming sufficient time in every 24 hours.

I have just looked back on my journal to see how long the drought lasted with us, and I find the following entry: Wednesday, May, 15th, rained last night and this morning—several May showers, continues cloudy and sets in to rain in earnest by 7 o'clock A. M. and rained moderately, without much intermission, till after dusk. After which we had no rain till the 8th of June,

at noon it rained a fine shower, which lasted 15 or 20 minutes, since we have had plenty of good refreshing showers. Corn and oats have started to grow, and bid fair to be a good crop; wheat looks well, and bids fair to be the best crop we have had for several years.

ROBERT A. SHERRARD.

Jefferson Co. O. June 24th, 1850.

SMART WEED.

Smart weed is almost a sure remedy in a case of cholera. Steep and drink the same as in any other herb tea. In the next place it is worth \$5 per hundred for a stock of cattle, if it is cut and well cured while in full bloom. Give an ox, cow, or horse, one pound per week, during the time they are up to hay, and it will keep their bowels and hide loose. It is an excellent physic. If a horse has one pound a week, there is no danger of his having bots or worms of any kind; and they will eat it sooner than they will the best of hay.—*Pittsfield Cultivator*.

From the Genesee Farmer.

SUB-SOILING.

Messrs. Editors,—Did you ever hear of *skinned land*? If not, I will explain the term, this wise: Land that has been cropped for a long succession of years skin deep i. e. worked four or five inches deep; the manures made upon the place sold each spring to the neighbor paying the best price for it. Just such a place of twenty-five acres, beautifully located near our city, I have recently purchased, intending to ride my hobby *Horticulture* to my heart's content. My first step was to doom to the dung cart a pair of horses, who ply steadily their three cords per day, consisting of stable manures, leached ashes, limed hair, charcoal from the rectifier's, sweepings from the smith's shops, bones, old plaster, lime rubbish, and last though not least, street dirt. These ingredients are carefully spread over the land, preparatory to the *stirring* of the soil, to which particularly I wished to draw your attention. Having purchased from your townsmen Messrs. RAPALJE & BRIGGS a No. 2 Nourse & Mason sub-soil plough, the novelty of the tool excited so great an interest that I extended invitations to some twenty practical and amateur far-

mers to be present at the trial, not one of whom had ever seen the operation of sub-soiling. Having fully examined the nature of the soil, I determined to run the first furrow with the common plough nine inches deep, turning over a fine and mellow loamy soil. This was followed by the sub-soil plough, drawn by four oxen, eight inches deeper, crumbling and rendering permeable and light without bringing to the surface gravel pan or other dead and inert matter, but comminuting earths rich in organic materials, that have lain dormant doubtless for ages. Here was the charm! Our friends looked with delighted astonishment—conviction flashed upon the mind—perfectly satisfied of the great and important results that must follow the act, in giving depth for roots to penetrate—in placing a check upon the usual destruction by summer drought, and the assurance of moisture at those times by capillary attraction, the greater amount of heat and atmospheric influences earlier in the season, with all those chemical effects nature calls to her aid to produce vegetable growth when relieved by the incubus she has been weighed down by.

The land was left as light as a feather bed—indeed, equal to a well trenched garden, the surface being raised some ten or twelve inches above the former level, a stick easily penetrating to the full depth of seventeen inches! Is not this the great and fundamental step towards rejuvenating my poor skinned land?

My farm operations are, for the season, principally experimental, such as ordinary ploughing of seven inches and sub-soiling seventeen inches alternate strips, each having the same manures, and seeding to oats, corn, potatoes, &c.; also, top-dressing new grass land in sections, with charcoal, domestic poudrette, plaster, stable manure, lime rubbish, guano; besides which, I am planting some one thousand additional fruit trees, &c. &c. The results of these various experiments I hope to detail for the *Farmer* at a future time.

In the draft of the sub-soil plough, we exchanged the oxen for a three horse team, and again to a single pair, which, by the by, were fine ones, and with the exception of hard gravel pan, or plastic clay, two horses worked it without severe fatigue.—Three horses abreast or a heavy yoke of oxen, however, make the most desirable team.

Our friends retired with the full conviction of the utility of sub-soiling, and the

determination of troubling Messrs. R. & B. for what they may have on hand of that pattern.

W. R. COPPUCK.

Longsight, Buffalo, June, 1850.

We thank our correspondent for the excellent example which he has set not only to the farmers in the vicinity of Buffalo, but to the many thousands who will read his valuable communication in this journal. The experiments of one of the most enterprising and skilful horticulturists in the "Queen city of the Lakes" will be more than welcome to our columns.

THE WHEAT CROP.

The *Brookeville* (Ind.) *American* says: "The Editor can certify, from personal observation, that the wheat crop is far above, in quality and quantity, the usual crop in the States of Indiana, Ohio, Kentucky, Virginia, Pennsylvania, Maryland, Delaware and New Jersey, having seen the farmer in all these States harvesting. And when in New York, although the wheat was not ripe, yet it bid fair for a heavy yield. It cannot be otherwise than there will be at least double the amount in the United States of last year's crop. This is a large estimate, but we believe the facts will justify the conclusion."

The *Galena* (Ill.) *Advertiser* of the 19th ult, says: "In many parts of the country the wheat harvest is over, but here the farmers are in the midst of it. Taking the country together, and judging from what we read and hear, the crop has been a full average one. In the counties of Du Page, Kendall, Kane and Stephenson, many fields of Spring wheat, that ten days ago looked promising, have been destroyed by the fly or chintz bug."

The *Cincinnati Gazette*, says: "We have not for several years received so good accounts of the wheat harvest, as those that are now coming in from nearly all directions. In nearly the whole river tier of counties on the Ohio, in this State, and in Indiana, the harvest is through, and the yield reported excellent. The Whitewater Valley has turned out one of its brag crops. In the northern part of the State the harvesting was just beginning when the late rains commenced, and a good deal of fear is indulged as to rust

Farmers in this neighborhood bring in

excellent reports as to their corn, potatoes, &c. since the rains."

The *Tallahassee* (Florida) *Journal* of the 22d ult. says: "No rain yet, and the crops are suffering greatly from the drought. The cotton crop is partially destroyed. In some sections there has been no rain of consequence since the last of March."

The *Columbus* (Ga.) *Sentinel* "states an unusually wet spring has been succeeded thus far, with an unusually dry summer. The corn crops of the country are suffering considerably for the want of rain, and unless they have a shower soon, that crop must be seriously cut off."

The *Buffalo Courier* says: We yesterday conversed with a gentleman who had just returned from a trip through the interior of Wisconsin and Michigan, who informs us that the wheat in both those states is uncommonly fine, and the crop exceedingly large. It is beyond the reach of any ordinary contingency, and will be mostly harvested during the present and coming week. In Ohio the crop will be magnificent, and from indications throughout the country generally we may fairly expect a more bountiful supply of the products of the soil than has hitherto been realized in any one season.

The *Ravenna Whig* says: From nearly all parts of this country we hear the most encouraging accounts of the prospects of full crops of most kinds of grain, &c.—Wheat looks unusually well, bidding fair to be more than an average yield, and of a very superior quality. There will probably be a good crop of oats. Rye bids fair for more than an average crop. It will be quite late in the season before grass can be cut; present appearances indicate that the growth will be short, but very thick, probably not more than half a crop. Farmers are in the best of spirits in view of prospects ahead; there being a marked change within three weeks."

THE SHEPHERD'S DOG, &c.

Years have passed over our head since in youthful glee we wandered among green pastures, admiring the flocks of sheep quietly feeding on the gentle slope, watching the gambols of the playful lambs, and the faithful dog obeying even the slightest motion of his master, and gently turning the flock when disposed to wander. It is "long, long ago," that under the shade of some white thorn-hedge or ancient oak, we lis-

tened to the shepherd's wonderful story of the sagacity of his favorite dog,—more pleasing than fairy tale, or even shepherd's lute. And yet these scenes have left their impress. The shepherd with his dog quietly dozing by his side, and the flock peacefully grazing or listlessly reposing on the green, is to us the brightest, most beautiful picture of rural life. "It is a picture of peace and contentment, and affection.—When the interest of the flock requires it, the shepherd makes known his wishes, and the dog is ever delighted to obey—ever ready to do his work with zeal and fidelity, and when done, lays himself down with evident and well expressed satisfaction, at his master's feet. The sheep obey the dog almost as readily as the dog obeys the shepherd, and seem to look to him as a protector. The shepherd loves his dog and his sheep, and the dog is equally attached to his master and his flock. The Almighty has chosen this beautiful scene to illustrate his love for his creatures, and his care over them. Modern customs and modern improvements may, in some respects, have changed the shepherd's life; but in our imagination, we must ever hold this picture of our early days as the *POETRY* of rural life.

We might tell many facts illustrating the more than human sagacity of the shepherd's dog, but one or two will suffice, and we think will not fail to be interesting:

Mr. JAMES HOGG, the Ettrick Shepherd, living in his early days among the sheep and their quadruped attendants, and an accurate observer of nature, as well as an exquisite poet, gives some anecdotes of the colley, (the Highland term for sheep dog,) with which the reader will not be displeased. "My dog, Sirrah," says he, in a letter to the Editor of Blackwood's Edinburgh Magazine, "was, beyond all comparison, the best dog I ever saw. He had a somewhat surly and unsocial temper, disdaining all flattery, and refusing to be caressed; but his attention to my commands and interest will never again be equalled by any of the canine race. When I first saw him a drover was leading him with a rope. He was both lean and hungry, and far from being a beautiful animal; for he was almost black, and had a grim face, striped with dark brown. I thought I perceived a sort of sullen intelligence in his countenance, notwithstanding his dejected and forlorn appearance, and I bought him. He was scarcely a year old, and knew so little of herding that he had never turned

a sheep in his life; but, as soon as he discovered it was his duty to do so, and that it obliged me, I can never forget with what anxiety and eagerness he learned his different evolutions, and when I once made him understand a direction he never forgot or mistook it."

On one night, a large flock of lambs that were under the Ettrick Shepherd's care, frightened by something, scampered away in three different directions across the hills, in spite of all he could do to keep them together. "Sirrah," said the shepherd, "they're a' awa!"

It was too dark for the dog and his master to see each other at any considerable distance, but Sirrah understood him, and set off after the fugitives. The night passed on, and Hogg and his assistant traversed every neighboring hill in anxious but fruitless search for the lambs; but he could hear nothing of them nor of the dog, and he was returning to his master with the doleful intelligence that he had lost all his lambs. "On our way home, however," says he, "we discovered a lot of lambs at the bottom of a deep ravine called the Flesh Cleuch, and the indefatigable Sirrah standing in front of them, looking round for some relief, but still true to his charge. We concluded that it was one of the divisions which Sirrah had been unable to manage, until he came to that commanding situation. But what was our astonishment when we discovered that not one lamb of the flock was missing! How he had got all the divisions collected in the dark, is beyond my comprehension. The charge was left entirely to himself from midnight until the rising sun; and if all the shepherds in the forest had been there to have assisted him, they could not have effected it with greater promptitude. All that I can say is, that I never felt so grateful to any creature under the sun as I did to my honest Sirrah that morning.—*Gen. Farmer.*

SPAYING SOWS.

Have you ever heard of spaying sows, by a new process? Two months ago, I tried with success, and with less pain to the animal, than when done with the knife. It is, to inject with a small syringe, up the uterus, about a wineglassful of sulphuric acid. This destroys, on the part of the sow, all desire to take the boar. I would inquire whether any other one has tried this plan?—*American Agriculturist.*

For the Southern Planter.

MIXED CROPS.

It is very important to all of us whose means are small to make the best use of the land we cultivate. I do not mean to say get all we can out of it at every hazard and at the expense of its natural fertility; because I always wish to see some improvement added each time a piece of ground is cultivated.—Our truck patches which, if they furnish us nothing to sell, serve to fill up our tables and give zest to our meats, ought to receive more care than is generally bestowed. We might often raise upon one acre what now requires three, and with diminished labor. The plan which I have endeavored to pursue is that of mixed crops, particularly as to tomatoes, potatoes, watermelons and corn, which grow so well together. We all know how well-tasted and how safe is the mixture of tender, green corn and stewed tomatoes when dressed upon the table; so, also, in their growth, they agree well. Professor Mapes says that the tomato when grown among corn is far superior to those grown in the ordinary way. I know this to be a fact, and the best flavored tomatoes I ever tasted grew among corn in low-grounds from hap hazard seed cast there amidst pumpkins and gourds. I have planted the Irish potato between five and a half feet corn rows; but do not think the practice pays. I prefer planting the potatoes regularly and afterwards corn here and there, in the patch. That the corn does absolutely prevent rot in the potato, I cannot say from observation.—The theory is that corn has a superior attraction for the nitrogenous matters of the soil, and therefore prevents them, when become soluble from being absorbed in too great a degree by less energetic plants, to which they are harmful.

The plan I pursued this year was watermelons, muskmelons, tomatoes, corn and a few gourd vines all upon the same ground. Watermelons were the main crop. Adjacent to this patch, potatoes were planted. Now all these crops are in good condition, and I cannot help thinking that, differing as they do in their component elements, each has drawn from the soil that particular species of nourishment best suited to its structure. It appears strange that all should be better than if each were separately planted; still it seems to be true.

It is another advantage of this mixture of truck patch crops that we are enabled to save so much labor; and what, I would ask, can be a better preparation for wheat than the cultivation given, throughout the summer, to ground thus managed?

Turnips, which, after all that has been said in their praise, are in this climate, a vastly overrated crop, may be grown upon the space occupied by the earlier dug potatoes and the early watermelons. The ground will be just

in that condition in which it can best accommodate their long tap-roots. I should feel more secure of a crop when sowing them in such a situation than on land freshly flushed.

These suggestions from experience and observation are not applicable to farmers of enlarged estates but to such as would make themselves comfortable and prosperous upon a

SMALL FARM.

ELECTRO-MAGNETISM AND MOTIVE POWER.

Most of our readers will recollect the accounts published in the newspapers of the country several years since, of the discovery of the means of converting electro-magnetism into a motive power. The name of Dr. Chas. G. Page, of the Patent Office, more than that of any other person, has been connected with its practical application. Dr. P. by experiments in miniature, so to speak, became convinced that electro-magnetism might be so applied as to supersede the use of steam power in most situations. He accordingly applied to Congress for the means of conducting his investigations upon a larger scale.—An appropriation of twenty thousand dollars was obtained and has been expended in a variety of experimental investigations under Dr. Page's direction. The results are now in the course of exhibition to the public at the Smithsonian Institution, where Dr. P. has been lecturing and displaying his magnetic engine in full operation. The National Intelligencer thus notices the lectures:

"Professor Page, in the lectures which he is now delivering before the Smithsonian Institution, states that there is no longer any doubt of the application of this power as a substitute for steam. He exhibited the most imposing experiments ever witnessed in this branch of science. An immense bar of iron, weighing one hundred and sixty pounds, was made to spring up by magnetic action, and to move rapidly up and down, dancing like a feather in the air, without any visible support. The force operating upon this bar he stated to average *three hundred pounds* through ten inches of its motion. He said he could raise this bar one hundred and ninety feet as readily through ten inches, and he expected no difficulty in doing the same with a bar weighing one ton, or a hundred tons. He could make a pile driver, or a forge-hammer, with great simplicity, and could make an engine with a stroke of six, twelve, twenty, or any number of feet.

"The most beautiful experiment we ever witnessed was the loud sound and brilliant flash from the galvanic spark, when produced near a certain point in his great magnet. Each snap was as a pistol; and when he produced the same spark at a little distance from this point, it made no noise at all. This recent discovery he stated to have a practical bearing upon the construction of an electro-magnetic engine. Truly, a great power is here; and where is the limit of it?"

"He then exhibited his engine, of between four and five horse power, operated by a battery contained within a space of three cubic feet. It looked very unlike a magnetic machine. It was a reciprocating engine of two feet stroke, and the whole engine and battery weighed about one ton. When the power was thrown on by the motion of a lever, the engine started off magnificently, making one hundred and fourteen strokes per minute; though, when it drove a circular saw ten inches in diameter, sawing up boards an inch and a quarter thick into laths, the engine made but about *eighty* strokes per minute. There was great anxiety on the part of the spectators to obtain specimens of these laths, to preserve as trophies of this great mechanical triumph. The force operating upon his magnetic cylinder throughout the whole motion of two feet, was stated to be six hundred pounds when the engine was moving very slowly, but he had not been able to ascertain what the force was when the engine was running at a working speed, though it was considerably less. The most important and interesting point, however, is the expense of the power. Professor Page stated that he had reduced the cost so far, that it was less than steam under many and most conditions, though not so low as the cheapest steam engines. With all the imperfections of the engine, the consumption of three pounds of zinc per day would produce one horse power. The larger his engines, (contrary to what has been known before,) the greater the economy. Professor Page was himself surprised at the result. There were yet practical difficulties to be overcome; the battery had yet to be improved; and it remained yet to try the experiment on a grander scale, to make a power of *one hundred horse*, or more.

"Truly the age is fraught with wonders; and we can now look forward with certainty to the time when coal will be put to better use than to burn, scald and destroy."

Yes; the age truly will be fraught with wonders when steam shall have been superseded! But we are yet in doubt. We want to see more of this mysterious agent. The subject has again been brought before the Senate of the United States and a proposition submitted for testing the practicability and cost of propelling a man of war or merchant ship. Dr. P. says, "With the same size of

battery, and much less cost, I am enabled now to exert a force of six hundred pounds where little more than a year ago I obtained a force of only fifty pounds. With a consumption of two and a half pounds of zinc, I now produce one horse power for twenty-four hours. This is nearly as cheap as the cheapest steam engine in the world, and much cheaper than steam under some conditions." The cost of zinc is stated at eight cents per pound. The advantages claimed by Dr. P. are numerous. He says his machine occupies but little space compared with a steam engine, instantly communicates its whole power, avoids all danger from fire, does not have to stop to take in wood and water, may enter cities without endangering or annoying any one, &c. Let these advantages be proved, and who shall foretell the revolution in all motive power?

There are not a few of our readers whose estates are such as to require the use of much motive power beyond that employed at the wagon tongue and at the beam of the plough. In those situations, we cannot, in our day and generation, dream of seeing other than animal power employed. But in various other operations of the large farm, the want of more force and cheaper force to give motion to machinery has been long felt. If the proprietor be fortunate (or unfortunate, because grinding the grist is not what it used to be,) enough to have a mill, and water power to be used for other purposes at will, it is in one place only, and cannot be moved. It cannot be advantageously employed in threshing grain, shelling corn, cutting up forage, packing hay, grinding apples, pumping water, or in any of the minor operations which require motive power. The stationary saw mills of the country are becoming more and more inconvenient every year, as timber grows less abundant; and the portable saw is ere long destined to supply their place to a very great extent. Suppose, now, the machines of Dr. Page are found practicable for common use, will it not become the interest of every large farmer to possess and use one of them? We should think so, undoubtedly. The subject of portable steam engines for farm purposes is attracting much attention among the Agricultural Societies northward. The Maryland Society offers a premium of one hundred dollars for the best exhibited at their fair on the 24th October, and

we await with some curiosity the result of the exhibition and report of the viewers. In the New York Tribune we find an account of one now in operation on a farm near Watertown, New York. According to the editor, it has been very successful, and is easily transferred from place to place. Looking at the subject cursorily, and not as an experienced mechanic would perhaps do, we cannot see why it is not practicable to attach a steam engine to any desired spot and remove it at pleasure, and with as much ease as we put down and take up the horse power and drum of a threshing machine. With such portable motive power, the farmer might almost command his own time for every operation. We apprehend that the danger likely to result from fire will always operate to prevent the use of many steam engines on the farm, and hence we have laid greater stress upon the importance of electromagnetic power, by which casualty from fire and expense of fuel are alike avoided.

For the Southern Planter.

MULTICOLE OR POLAND RYE.

In the volume of the Southern Planter for 1843, Mr. William Massie, of Nelson, states that he with much difficulty procured half a gill of this grain, which produced one exact bushel. From the bushel, on ordinary land, he made forty-five bushels, while the produce of the common rye did not exceed four to one. His subsequent experience seems to have been equally successful. Having been struck with his statements, and having it as strongly recommended by another gentleman, I procured in November, last year, one bushel, which was seeded on two acres of ordinary land, and has produced a very fine crop—not less, I think, than fifty or sixty bushels—though not having yet been able to thresh it I could not ascertain the exact quantity. Being satisfied, however, of its superior value to farmers who have working teams to feed, and the time for seeding being at hand, I beg to call their attention to this valuable grain, and to recommend the substitution of it for a part of the customary oat crop. From land which will produce not more than twelve to fifteen hundred weight of oats to the acre, I am satisfied forty bushels of the Multicole rye may be made, and a much greater weight of straw than oats on the *best land* will produce. The grain ground and the straw cut and mixed with it, makes as fine feed for work horses and mules as can be. Two years ago the price was four dollars per

bushel. It may now be had for one dollar—possibly for less. I think no farmer will be disappointed who gives it a fair trial.

AN OLD SUBSCRIBER.

CROPS IN VIRGINIA.

The crop of wheat is a very fair one, taking the State at large. The grain is of lighter weight than usual. We have never seen so much straw. The process of threshing has been exceedingly tedious, not only in consequence of the length of the straw, but also of its dampness caused by the storm about the middle of July, and a succession of showers since. The present prices, in all probability, will not be sustained, unless the British crop shall turn up more than there is reason to anticipate from our last accounts. The first arrivals of this year's wheat found the Richmond millers not done shipping flour made from last year's crop. A considerable quantity of old flour is now on hand in the commercial cities. The Richmond market price is higher at present than that of Baltimore, which two years since exceeded ours several cents.

From every quarter we hear bad tidings of the tobacco crop, which will be largely curtailed. The failure, too, extends to Kentucky, Tennessee and Missouri. Such planters as were fortunate enough to have an abundance of plants, and will pay attention to the putting up of their tobacco in really nice order, may be assured of a lucrative business from this year's crop.

The crop of corn is very promising. It will give a fair remuneration to the grower. Unlike the other great grain staple, the quantity of old corn on hand is quite limited. The statements in relation to the crop made in this journal last season whilst it was growing have been fully borne out by the result. We have seen but too many short supplied cribs in our travels. The market for the crop of 1849 opened at two dollars and twenty-five cents per barrel, and reached three dollars and fifty cents before the middle of July. This latter price was somewhat reduced by the timely rains which came soon afterward. We have seldom seen as much grass, even where the crop was well worked, and now (24th August) appears between the rows. We should say that it will be impracticable to sow wheat,

even on light soils, without previously breaking up the land with the double plough.

The hay crop is superior to that of last season, and where a second crop has been permitted to grow, by moving the first in time and keeping cattle off the ground, the latter is the more luxuriant and makes a better yield.

Our fruits have again had to pass the ordeal of a fickle climate. The peach, of which we had at one time such confident hopes from its superabundant bloom, has disappointed all our expectations. The crop is meagre everywhere, and in some places nothing. Apples were very abundant, and we should have seen the largest crop during many years had not the continued wet weather done so much mischief in causing them to rot and fall.

Our gardeners, whose trade was barred last season by the prevalence of the cholera, have recovered their lost ground during the present year. Vegetables have seldom come to perfection better or been more in demand.

For the Southern Planter.

HORTICULTURAL REMARKS FOR SEPTEMBER, 1850.

PREPARED BY A. D. ABERNETHY, FLORIST, CLAY
STREET, RICHMOND, VIRGINIA.

Greenhouse plants should be looked over during this month, and those requiring larger pots shifted to them, and neatly tied to stakes. Roses to bloom well during winter may also be shifted into larger pots, using as a soil for them two parts turfy loam to one of well decayed manure. If charcoal is mixed with the soil or used as drainage at the bottom of the pots it will materially improve both flowers and foliage. When shifted let them be shaded and sparingly watered for a few days until they take root in the new soil, after which they may be freely exposed and watered. Any flower buds that may be upon them at the time they are shifted ought to be cut off, as it will aid them in blooming during winter. This is also a good season to strike cuttings of roses—let the cuttings be made from the young shoots that have bloomed, cutting them off smooth at the lower end, which should be immediately below a joint, and taking off the leaves as far up as they are intended to be planted. If they are to be planted in a shady situation out of doors, they should be inserted about two-thirds of their length. If in a frame, about one-third. In the former case they are more liable to be affected by dry weather or

frost, and consequently require to be planted deeper. Those in the ground may stand all winter, and in spring either planted in the open garden or in pots. Sow mignonette in pots for winter blooming. Towards the end of the month all the California annuals should be sown, of which the following short list comprise the best: *Phlox Drummondii*, *Careopsis Drummondii*, *Nemophylla insignis*, *Clarkia Pulchella*, *Gilio Capitata*, *Erysimum Peroffskianum*.

In the kitchen garden sow brown Dutch lettuce for winter and spring use, planting it out in a warm border during November.

UNIVERSITY OF VIRGINIA.

The following sheer fabrication has been going the rounds of some of the Northern abolition journals. It was last observed in a Pennsylvania newspaper called the "Good Samaritan," and printed at New Berlin, in that State:

"Of the one hundred and five young men who compose the graduating class of the University of Virginia, only five hold to the doctrine that slavery is desirable."

Our Virginia readers need no denial from those connected with the University, as students or Alumni, to convince them of the want of truth in the above paragraph. It carries falsehood on its face. There is no regular "graduating class" at the University; and, therefore, no vote could have been taken. If a poll was taken among the students generally, we have yet to learn the first of it. The whole thing is a trick of the abolitionists to misrepresent Southern sentiment.

TOBACCO DUST.

We last year procured from a snuff mill a parcel of dry, but damaged snuff flour, and prepared drudging boxes, covered with fine bolting cloth, with which we sifted it over the surfaces of any plants attacked by insects, and with success. The snuff should be applied, if practicable, while the plant is wet with dew, and repeated after every shower. If the boxes are properly made, (like a common flour drudge,) and the snuff is perfectly fine and dry, but little time is necessary to go over an acre of plants. Even the rose-bug, cabbage-louse, thrips on grape vines, &c. all yield to the influence of snuff.

STRAWBERRIES.

A correspondent, who is desirous of having an abundance of this delicious fruit, inquires what is the best season for setting out the slips. We answer, by recommending the month now at hand—September. The slips should be set during a rainy season, or when the ground is wet. They will have a sufficiency of time to become well rooted before winter. By setting out now, the vines will commence bearing next year; whereas, if not set out till the coming spring, they will be a year later. The gray loam is the best soil for them. The Ohio Cultivator says:

"The ground should be worked very deep, by spading or deep ploughing; and if poor, manured, with well rotted manure; but too much manure is not favorable for a good crop of fruit.

"The after culture of strawberries consists of keeping the beds clear of weeds, and cutting off the runners frequently, if young plants are not desired. The runners will need trimming off about three times during a season, and the spaces between the rows frequently hoed. If young plants are desired, a part or all of the bed may be left untrimmed till the plants are well rooted, and taken out, but care must be taken to keep clear of weeds."

It is the practice of many cultivators of the strawberry to cover the vines over with pine leaves and brush during the winter months and until the spring frosts have subsided. This custom, however, does not obtain with the most successful growers we know of.

PULLING FODDER.

The season has now arrived when this favorite and, to many farmers, indispensable process has to be undertaken. Why it should be a favorite policy with any, we cannot see, although we know it to be indispensable to such as are over supplied with stock, or, speaking more correctly, short of grass. To all such, the practice of pulling fodder is important.

Among all the trees, shrubs, plants and flowers produced by Nature, we cannot find one instance where she sheds the leaf before she matures the fruit. All naturalists concur in regarding the leaf as intended to afford sustenance to the berry or fruit, and they have demonstrated that the fodder of Indian corn

performs that function for the ear. All other plants are permitted to grow up to maturity unmolested, save that teeming crop with its long blades and lofty tops, which are too tempting to be passed over, and must needs be *barberized*. Present (apparent) gain is acquired in the fodder and tops at the expense of future loss in the bulk and weight of the ear. We might, also, show how a superior economy could be subserved by feeding the entire stalk, unstripped and uncut; but that subject has already been treated of in former numbers.

The South Carolina "Farmer and Planter" has the following:

"As fodder pulling time is at hand, it will be well for the planter to examine into the utility of taking the leaf from the corn. Have you ever thought, planters, of the object of the leaf? How much corn would a stalk perfect, think you, were the leaves all varnished, thereby entirely closing the pores? Why the grain would be shrivelled and worthless; for it is through the pores of the leaf that the cob and kernel draw nutriment, as well as from the roots. What sane planter would think of cutting off a portion of the corn-roots just as the grain was filling out? And yet the principle is the same. Actual experiment has demonstrated that a field of corn left with the leaf unmolested, will gain more in weight than the value of the fodder pulled—to say nothing of that which should decompose and go to make corn again. It is even a doubtful policy to feed a horse on fodder; for there are more coughs, bellows and such diseases, caused by bad fodder, than most people are aware of. Oats, hay or shucks are better, because cleaner, and even more nutritious."

GUANO—AMOUNT USED.

In our August issue we gave the number of tons of this article inspected in Richmond by Dr. John N. Powell, up to the first of that month, comprehending one quarter. The amount inspected during that time was 715½ tons. We learn that from August, 1849, to August, 1850, Mr. H. W. Fry sold 1950 tons, all of which was sent from Richmond by rail road, canal and wagons. Much of it was never stored, but taken directly from the vessels, so great has been the demand. Mr. Jas. Winston sold 137 tons; Garland & Robinson about 150; Wortham, M'Gruder & Co. 50 tons, and other houses smaller lots during the same period. In addition to this, much guano, ordered from the North by individual farmers

and clubs of farmers, was landed in Richmond and sent off into the country without passing through the hands of our merchants. Computing the whole together, it is supposed that 3000 tons were received at Richmond during the twelve months.

We have no report from the office at Petersburg—Thomas S. Pleasants, Inspector.—We should be happy to hear from our friends of the "South side" generally upon that and other subjects.

CURE FOR A FOUNDERED HORSE.

Some three years since, I had the misfortune to founder a valuable horse. It was a corn founder of the worst kind—so much so that he could not take a step.—Having had but little experience in horse flesh, I called in some neighbors, and they pronounced him incurable, and advised me to knock him in the head, as the speediest cure. I could not bear the thought of giving up so valuable and faithful an animal, and as the last resource, I applied to my "Book Farming." In an old number of the *American Farmer*, I found the following recipe for founder horses and although my faith was weak, I immediately applied the remedy with entire success:

"Have a tub of water as near boiling hot as possible, and commence bathing his legs, beginning at the fetlock and go up, for if the hot water is applied above it the hair will be taken off. When the leg which is founder has been well bathed, wrap it in woollen blankets, and tie the blanket on carefully, and then saturate the blanket with hot water, beginning at the bottom and go up. Repeat the hot water once in two hours, until the swelling begins to go down. Give the horse a purge of sage tea, molasses and melted lard, say a pint of each; and should it be a bad case bleed him in the neck."

As mine was a bad case, I followed all the directions implicitly, notwithstanding the oft repeated assertions of the man that applied the water, that the hair would all be taken off, I had the satisfaction to see my horse speedily recover.

This invaluable remedy I might have never given to the public, had not the same been again founder and again cured by the same simple remedy. But for the *American Farmer* I should have lost my horse.

WHITENESS IN FLOUR.

We extract the following from a letter published in the *Alabama Planter*. The writer, having enumerated and described many of the diseases of wheat, speaks thus of the injury caused to flour by improper management of the wheat: "This deficiency of whiteness, and peculiar fishy-like smell, are very apt to tell the intending purchaser the black origin of this defect has been from wheat diseased with smut. There is no cure for this after the grain is ground into flour. As flour, it is seen and detested by every body, for every body sees it, and if eaten when made into bread, certainly proves unwholesome."

RICHMOND AND FREDERICKSBURG DEPOT.

It will be remembered that the old depot of the Richmond and Fredericksburg Rail Road Company was burned last December, and with it several thousand bushels of wheat, &c.—The occurrence of the fire, as is known, did not interrupt transportation or delay the departure of a single train. Since the fire the depot has been rebuilt, and is now of more thorough construction, and to all intents and purposes fire-proof. The losses by the fire have, we understand, been adjusted, and the arrangements now in force will render a similar casualty the next thing to an impossibility.

IMPROVED STOCK.

In our advertising columns will be found an advertisement from Mr. Aaron Clement, residing in Cedar Street, above Ninth, Philadelphia, offering his services to the purchasers of improved stock. Mr. C.'s references in this community are men of undoubted character and judgment.

And whilst on this subject, we take occasion to inform such of our friends as may be in want of an improved breed of hogs that they can obtain some of the "Bedford" stock at General Richardson's farm, near this city.—This is the stock originally bred with so much care and such success at Woburn Abbey.—They would take a premium over anything exhibited in Baltimore last fall.

COMMERCIAL RECORD.

WHOLESALE PRICES CURRENT,

REPORTED FOR THE SOUTHERN PLANTER BY
NANCE & GOOCH, COMMISSION MERCHANTS.

TOBACCO.—Since our last report for the Planter, the market has been quite animated. Prices yesterday and to-day for most descriptions have advanced 50 cents per hundred.—We quote Lugs at \$5 to \$8 50; Leaf, good to fine manufacturing, \$9 to \$18 50; Shipping \$9 to \$15. The expectation that the late freshets have materially injured the growing crop caused some anxiety, and may account for the late advance.

FLOUR.—Old, canal, \$5 to \$5 12½; Scottsville, \$5 25. New, canal, \$5 25; Scottsville, \$5 25 to \$5 50.

WHEAT.—Red, \$1 10; \$1 15 for white.

CORN.—60 to 62½ cents per bushel.

CORN MEAL.—75 to 80 cents per bushel.

WHISKEY.—Rectified 62½ cents per gallon; Mountain 40 to 50 cents per gallon.

SUGARS.—New Orleans, 6¼ to 7¼; West India, 6 to 7¼.

FLAX SEED.—\$1 10 per bushel.

CLOVER SEED.—\$4 50 to \$1 75 per bushel.

FEATHERS.—32 to 33 cents per lb.

FISH.—Herrings, No. 1, cut, \$6 50; gross, \$4 50. Mackerel, No. 3, \$5; No. 2, \$8 50; No. 1, \$13.

LIME.—Thomaston, from wharf, \$1; Camden, 90 cents.

PLASTER.—Lump, from wharf, \$3; Baron, \$4; Tierces, 500 lbs. \$1 45.

SALT.—From wharf, \$1 45; from store, \$1 50.

GUANO.—Peruvian, \$50 per ton.

August 30

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.

STOCK Cattle of all the different breeds, Sheep, Swine, Poultry, &c. will be purchased to order, and carefully shipped to any part of the United States, for which a reasonable commission will be charged. Apply to

AARON CLEMENT, Philadelphia.

N. B.—All letters, post-paid, will be promptly attended to. aug—if

AGRICULTURAL WAREHOUSE.

The subscriber continues to manufacture Agricultural Machines and Implements—such as Horsepowers, Threshers or Drums, Fan Mills, Straw Cutters, Corn Shellers, a variety of patterns, Hill Side and Subsoil Ploughs, Corn and Cob Crushers, Cultivators, Harrows, &c.—all of which will be made in the best manner, and after the most approved patterns. My Horsepower has been tested two seasons, and uniformly pronounced to be the best in use.

Field and Garden Seeds.

Castings furnished at short notice.

ap—3t H. BALDWIN, 148, Main st.

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PERUVIAN GUANO.

I AM NOW prepared to receive orders for Guano for the approaching season.—Being anxious to distribute the article as widely as possible over the whole country, will sell any quantity, from a single bag up to one hundred tons. Persons wishing to make sure of a supply, would do well to forward their orders without delay. The article is put up in fine order, in new cotton bags, and as pure as it came from the banks in Peru.

ly—2t

HUGH W. FRY.